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CALAVERAS COUNTY GENERAL PLAN

December 9, 1996

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U.S. DEPARTMENT OF THE INTERIOR

UNITED STATES OF AMERICA
BUREAU OF LAND MANAGEMENT

PREFACE

California law requires that every county and city have a comprehensive, long term general plan for its future development.

The Calaveras County General Plan attempts to preserve individual property rights, while attempting to balance other competing interests. In areas where the County's most valuable resources exist, the Plan establishes more restrictive land use policies.

The original Calaveras County General Plan was adopted in 1967. The Board of Supervisors adopted amended versions in 1973, 1974, 1982, 1985 and 1986. This version of the General Plan reflects text amendments approved by the Board of Supervisors through December 9, 1996.

The 1996 edition includes updated statistical data compiled by the land use consulting firm of Crawford, Multari & Starr of San Luis Obispo.

PREFACE

The first of these is the fact that the book is written for the student of the subject, and not for the specialist. It is written in a simple and straightforward manner, and it is hoped that it will be found useful to all who read it.

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2. The second part of the document is a report from the Secretary of the War Department, dated January 10, 1862. It provides a detailed account of the military operations of the Army of the Potomac during the month of January. The report includes information on the movements of the army, the results of the battles, and the condition of the troops. It also mentions the capture of several forts and the destruction of many enemy supplies.

3. The third part of the document is a report from the Secretary of the Navy Department, dated January 15, 1862. It provides a detailed account of the naval operations of the United States Navy during the month of January. The report includes information on the movements of the fleet, the results of the battles, and the condition of the ships. It also mentions the capture of several enemy ships and the destruction of many enemy supplies.

4. The fourth part of the document is a report from the Secretary of the Treasury Department, dated January 20, 1862. It provides a detailed account of the financial operations of the United States Treasury during the month of January. The report includes information on the receipts and expenditures of the Treasury, the condition of the public debt, and the state of the currency. It also mentions the issuance of several new bonds and the collection of many new taxes.

5. The fifth part of the document is a report from the Secretary of the Interior Department, dated January 25, 1862. It provides a detailed account of the land operations of the United States Interior during the month of January. The report includes information on the movements of the land forces, the results of the battles, and the condition of the land. It also mentions the capture of several enemy forts and the destruction of many enemy supplies.

6. The sixth part of the document is a report from the Secretary of the War Department, dated January 30, 1862. It provides a detailed account of the military operations of the Army of the Potomac during the month of January. The report includes information on the movements of the army, the results of the battles, and the condition of the troops. It also mentions the capture of several forts and the destruction of many enemy supplies.

7. The seventh part of the document is a report from the Secretary of the Navy Department, dated February 5, 1862. It provides a detailed account of the naval operations of the United States Navy during the month of January. The report includes information on the movements of the fleet, the results of the battles, and the condition of the ships. It also mentions the capture of several enemy ships and the destruction of many enemy supplies.

8. The eighth part of the document is a report from the Secretary of the Treasury Department, dated February 10, 1862. It provides a detailed account of the financial operations of the United States Treasury during the month of January. The report includes information on the receipts and expenditures of the Treasury, the condition of the public debt, and the state of the currency. It also mentions the issuance of several new bonds and the collection of many new taxes.

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INTRODUCTION

1.0 The Calaveras County General Plan and Related Land Use Documents

All counties in California must comply with state planning laws. They must prepare comprehensive, long term general plans for the development of the county, and approve projects based on consistency with the General Plan.

Although the State establishes statutes governing general plans and their preparation, the policies contained within the plans are left to local discretion. The overall direction of the Calaveras County General Plan is to provide for a balanced plan that effectively meets the needs of the public and is sensitive to environmental, economic and social conditions.

The intent of developing a General Plan is for its use by decision makers, including its diagrams or maps, to coordinate land use and infrastructure decisions. At the same time, given the long-range nature of a General Plan, its text and maps should be general enough to allow a degree of flexibility in decision making as conditions change.

1.1 General Plan Elements

California Government Code Section 65302 identifies seven elements which must be included in all general plans. The Calaveras County General Plan consists of these mandatory elements, which are described by the Governor's Office of Planning and Research (OPR) in its General Plan Guidelines as follows:

- **The Land Use Element** designates the general distribution and intensity of uses of the land for housing, business, industry, open space, education, public buildings and grounds, waste disposal facilities and other categories of public and private uses.
- **The Circulation Element** is correlated with the Land Use Element and identifies the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities.
- **The Housing Element** is a comprehensive assessment of current and projected housing needs for all segments of the community and all economic groups. In addition, it embodies policy for providing adequate housing and includes action programs for this purpose.
- **The Conservation Element** addresses the conservation, development and use of natural resources including water, forests, soils, rivers and mineral deposits.
- **The Open Space Element** details plans and measures for preserving open space for natural resources, the managed production of resources, outdoor recreation, public health and safety, and the identification of agricultural land.

- **The Noise Element** identifies and appraises noise problems within the community and forms the basis for land use distribution.
- **The Safety Element** establishes policies and programs to protect the community from risks associated with seismic, geologic, flood and fire hazards.

The detail that each issue is afforded in the local plan depends on local conditions and the relative local importance of that issue.

In addition to the seven elements of the general plan, an appendix is included as a part of the document containing technical data and a glossary of terms used in the general plan. Some terms are also defined in the various elements.

1.2 Internal Consistency

State planning law requires that all parts of the General Plan comprise an integrated, internally consistent and compatible statement of policies. These standards imply that: 1) all elements of the General Plan have equal status; 2) all goals, objectives, policies, principles, standards, and plan proposals in the General Plan must be internally consistent; and 3) any implementation programs set out in the plan must follow logically from the plan's goals and policies.

Because all elements of the General Plan have equal legal status, the goals, policies, and implementation measures of each element must be integrated and compatible with all other elements. When a new element is adopted or revised, the remaining elements of the General Plan may also need to be changed to eliminate any inconsistencies.

1.3 Definitions of Maps, Goals, Policies, and Implementation Measures

The goals, policies, and implementation measures set forth in each element comprise the heart of the General Plan. The California Government Code states that "the General Plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals" (Section 65302). The purpose of this section is to define these terms in the context of this General Plan.

General Plan Diagrams (Maps)

The diagrams that are required in a General Plan under the State law have been defined as graphic expressions of the plan's development policies. The diagrams or maps in a General Plan need not be as detailed as other regulatory maps, such as zoning maps, but they should be detailed enough so that the users of the plan, after reviewing all other pertinent maps and portions of this plan, can reach the same general conclusion regarding the appropriate use of any parcel of land.

Due to the scale utilized in mapping the various land use categories, errors are occasionally discovered on the Future Land Use Map. When it is thought that an error may have occurred, the base maps utilized for the individual land use categories as well as relevant zoning amendment files will be researched. Upon a finding by the Board of Supervisors that a mapping error has occurred, the affected land use category shall be corrected on all maps.

When a parcel of land is shown on General Plan maps to be within a particular category or designation, the property owner may rebut the precision of the mapping with site-specific information evidencing the inappropriateness of the designation or category. The General Plan maps are controlling, unless the Board of Supervisors finds that a parcel has been inappropriately mapped, in which case it will be amended.

Goals

A goal statement sets the direction for more specific policies and implementation programs. Goals express ideal future ends, conditions, or states relating to the public health, safety or general welfare, toward which planning measures are directed. Goals are stated in general, broad terms. A goal is a general expression of community values and, therefore, generally is abstract.

Policies

Policies are statements that guide decision making and indicate a commitment to achieving general plan objectives.

Policies are based upon General Plan goals and are arrived at through planning experience, studies, and an interpretation of the best available data and information at a particular point in time. At the General Plan level, policies are not static as ironclad regulation. New and better information will necessarily be presented to the decision makers during the life of this Plan. As an evolutionary document, the policies expressed in this Plan will be evaluated in light of new and better information and, updated when necessary.

Decisions as to whether a particular action, program or project is consistent with this General Plan will consider whether all aspects of a future action will further the objectives and policies of this General Plan without obstructing the attainment of these policies. Policies in this General Plan strike a balance between clarity for guiding decision makers and a framework for comprehensively weighing competing policies in the County. Policies expressed in this General Plan are intended to be part of an integrated document encompassing concerns which are both compatible and competing, and it is inappropriate to assess consistency of a singular policy without reference to this framework. The policies are intended to guide decision makers through this difficult balancing process.

Implementation Measures

Implementation measures are specific actions, procedures, programs or techniques for attaining goals and carrying out policies.

GENERAL PLAN RECOMMENDATIONS

Goal I-1: Provide a means to correct mapping errors without requiring an amendment to the General Plan.

Policy I-1A: Allow corrections to mapping errors through public acknowledgement.

Implementation Measure I-1A-1: Upon presentation of evidence of a mapping error, the Board of Supervisors may direct staff to make the appropriate corrections to the necessary map(s).

1.4 General Plan Amendments

The General Plan must reflect changes in community values and local conditions. Therefore, it is necessary periodically to monitor, review and update the General Plan. Local governments may amend their general plans four times in each calendar year. Calaveras County generally allocates three of the amendment periods for individual applications, and retains one for County-initiated amendments.

1.5 Area Plans

Cities and counties may develop plans for community or special areas within their jurisdiction. These area plans, referred to in this General Plan as Community, Special or Specific Plans, implement the General Plan and must be consistent with the General Plan policies and land use designations. These plans supplement and refine the general plan provisions, but must meet the requirements and intent of the overall general plan itself.

Calaveras County is diverse in climate, topography, and economy. The County's relatively small population is distributed throughout some 1100 square miles. These factors contribute to the County being comprised of communities with differing values and needs. Area plans afford communities the ability to address local issues with greater detail than in the overall General Plan.

Calaveras County has developed area plans for many of the major towns in the County. The majority of the County's population, small lots, industrial, commercial and multiple family residential development is found within these areas. Plans adopted by the County are incorporated into the General Plan, ensuring internal consistency between the General Plan and the various area plans. The result is a single land use planning document containing adopted policies and regulations, with more detailed requirements contained in the separate area plans.

GENERAL PLAN RECOMMENDATIONS

Goal I-2: Develop land use policies that address local issues and respect local preferences.

Policy I-2A: Incorporate area plans into the General Plan to insure consistency.

Implementation Measure I-2A-1: Appoint citizen committees to work with County staff in developing area plans, as budgeting and staffing levels permit.

1.6 Zoning, Subdivision and Road Ordinances

State law requires that all zoning and subdivision approvals be consistent with the adopted General Plan. Therefore, the County's Zoning and Subdivision Codes are important tools with which to implement the General Plan.

Regulation of subdivision and zoning is an exercise of state and local legislative authority (California Constitution, Art. XI, §7; Govt. Code §65800 *et seq.*). Statewide uniformity in local subdivision procedures is established by the Subdivision Map Act (Government Code §66410 *et seq.*). Uses and development standards allowed within particular zones are left entirely to local discretion.

Calaveras County's first Zoning and Subdivision Ordinances, Nos. 250 and 251, were adopted in 1961. In 1978, these original ordinances were repealed and replaced by new Zoning and Subdivision Ordinances, Nos. 945 and 946. The Subdivision Ordinance was rewritten in 1982, and the Zoning Ordinance was substantially revised in 1986, and has continually been updated since. The Subdivision and Zoning Ordinances are codified as Titles 16 and 17, respectively, of the Calaveras County Code.

Road standards were originally adopted in 1969, and amended in 1977. The first Road Ordinance was enacted in 1984 as part of the Subdivision Ordinance (Chapters 16.33 and 16.35 of the County Code). The Road Ordinance has since undergone major revision and is now codified as Chapter 12.02 of the Calaveras County Code.

1.7 Other Planning Documents

In addition to the General Plan and its associated area, special and specific plans, the County has several other major planning documents. They are the Solid Waste Management Plan, the Regional Transportation Plan, and the Hazardous Waste Management Plan. All of these documents are related to the General Plan.

2.0 County Description

Calaveras County is located in Central California along the western slope of the Sierra Nevada Mountain Range. The County's boundaries are the Mokelumne River on the north and the Stanislaus River on the south. The County's eastern boundary abuts Alpine County and the western boundary adjoins San Joaquin and Stanislaus Counties. Total land area of the County is 657,920 acres. The County has one incorporated city, The City of Angels, commonly known as Angels Camp.

The County is approximately 53 miles long from west to east and 20 miles wide from north to south. The western part of Calaveras County is characterized by rolling foothills beginning at an elevation of approximately 300 feet. The terrain rises to the east, reaching a peak height of 8,170 feet near the Alpine County boundary. Deep ravines and steep ridges are found between the foothills and the higher mountains.

2.1 Climate

Calaveras County's climate lies in a transitional zone between the Sierra Nevada and the San Joaquin Valley. Climate varies significantly due to great differences in elevation. Temperatures in the higher country range from the low 20's to the middle 80's. The lower foothills range in temperature from the low 30's to the high 90's, exceeding 100 degrees at times during the summer months. Rainfall generally increases with altitude, and snow accounts for much of the precipitation in elevations above 3000 feet.

2.2 History

Lands in the County were first used by the Miwok and Washo tribes. The lower part of the County was later used by settlers to raise cattle. The discovery of gold along the mother lode in the 1850's and 1870's resulted in the historic towns which, to a large extent, still serve as the County's main townsites.

Changes in land use after the end of the Gold Rush were relatively minor, until the growth of outdoor recreation beginning in the 1960's. Visitors seeking recreation and open space have created major changes in the area's economy and land use patterns. The rapid growth of subdivisions, including both seasonal and permanent homes, has resulted from these demands.

2.3 Economy

The County's economy is generated from six primary areas: tourism and recreation; forest products; mineral extraction and processing; agriculture; private business; and the public sector, including schools.

The scenic and recreational attributes of Calaveras County make the tourism and recreation industries an extremely valuable part of the County's economy. The Stanislaus National Forest, Big Trees State Park, historic Gold Rush towns, rivers and reservoirs, and the generally rural character of the County attract visitors as well as new residents. Proximity to the Mt. Reba Ski Area, just across the Alpine County line, provides excellent winter sport opportunities.

The forested areas of Calaveras County represent another valuable segment of the area's economy. The timber industry has shown a fairly stable pattern of providing local employment and building materials.

Mineral extraction combined with ancillary processing and manufacturing provides both a historic and potential source of industry in the County.

Agricultural production has been a historically stable industry in Calaveras County. Field crops, vineyards, orchards, livestock, and poultry are the categories contributing most to total gross value of production.

Private businesses such as construction, personal services, and retail establishments have grown as the County's population and tourism have increased.

Government is the County's largest employer, accounting for approximately 1/3 of all jobs.

Despite the diversity which exists in the County's economy, overall unemployment in the area currently remains above the state average. Unemployment in the County indicates the need for increased economic activity in the area. The attraction of new industries and businesses to Calaveras County is essential to the County's well-being.

Local land use regulation can be burdensome, deterring new business and industry from locating in a particular area. A streamlined regulatory process can encourage economic development.

GENERAL PLAN RECOMMENDATIONS

Goal I-3: Improve the economy of Calaveras County.

Policy I-3A: Encourage job-generating commercial and industrial developments.

Implementation Measure I-3A-1: Institute a feasible "one-stop" permit process involving the County's Planning, Public Works, Environmental Health, and Building Departments.

Implementation Measure I-3A-2: Develop materials explaining the County's development process, time frames, and similar information that will help property owners, builders, and developers.

Policy I-3B: Encourage projects that aid the travel and tourism industry.

Implementation Measure I-3B-1: When financially feasible, utilize a portion of the Transient Occupancy Tax to promote tourism.

Policy I-3C: Work cooperatively with the Chamber of Commerce, the Economic Development Company, and similar organizations to encourage commercial and industrial development.

Implementation Measure I-3C-1: Arrange periodic meetings between County officials and representatives of business and industry to discuss common concerns.

The first part of the chapter discusses the early history of the United States, from the time of the first European settlers to the American Revolution.

The second part of the chapter discusses the period of the American Revolution, from the Declaration of Independence to the end of the war.

The third part of the chapter discusses the period of the early republic, from the end of the war to the beginning of the 19th century.

The fourth part of the chapter discusses the period of the 19th century, from the beginning of the century to the end of the Civil War.

The fifth part of the chapter discusses the period of the late 19th century, from the end of the Civil War to the beginning of the 20th century.

The sixth part of the chapter discusses the period of the 20th century, from the beginning of the century to the end of the chapter.

The seventh part of the chapter discusses the period of the 21st century, from the beginning of the century to the end of the chapter.

The eighth part of the chapter discusses the period of the 22nd century, from the beginning of the century to the end of the chapter.

The ninth part of the chapter discusses the period of the 23rd century, from the beginning of the century to the end of the chapter.

The tenth part of the chapter discusses the period of the 24th century, from the beginning of the century to the end of the chapter.

The eleventh part of the chapter discusses the period of the 25th century, from the beginning of the century to the end of the chapter.

The twelfth part of the chapter discusses the period of the 26th century, from the beginning of the century to the end of the chapter.

The thirteenth part of the chapter discusses the period of the 27th century, from the beginning of the century to the end of the chapter.

The fourteenth part of the chapter discusses the period of the 28th century, from the beginning of the century to the end of the chapter.

The fifteenth part of the chapter discusses the period of the 29th century, from the beginning of the century to the end of the chapter.

The sixteenth part of the chapter discusses the period of the 30th century, from the beginning of the century to the end of the chapter.

LAND USE ELEMENT

1.0 Introduction

The Land Use Element addresses the future development of land in the County for residential, commercial, industrial, recreation, conservation and open space uses. The element's policies for land use designations, population density and building intensity coordinate future development with the capacity of the road system, the preservation of natural resources, and public health and safety.

In the past 150 years, Calaveras County has experienced major changes in population, including both upward and downward trends, as shown in Table II-1. From the height of the Gold Rush, population in the County steadily declined until 1942. In the 20 years between 1960 and 1980, the population doubled. While there has been a recent decline in the County's growth rate, by the year 2000, the population is projected to approximately double again over 1980 figures.

TABLE II-1 POPULATION HISTORY AND PROJECTIONS*		
YEAR	POPULATION	PERCENT CHANGE
1900	11,200	--
1910	9,171	-18
1920	6,183	-33
1930	6,008	-2
1940	8,221	+37
1950	9,902	+20
1960	10,289	+4
1970	13,585	+32
1980	20,710	+52
1990	31,998	+55
2000	45,600	+43
2010	57,532	+26

* Department of Finance Report 91 P-1, extrapolated to the year 2010

1.1 Legal Authority

State law requires every county to formulate and adopt a Land Use Element which, through the development of policies, plans, and standards, shows the proposed general distribution, location, density and intensity of land uses for all parts of the county (California Government Code Section 65302(a)). This Element designates the proposed distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and other categories of public and private uses of land.

1.2 Relationship to Other General Plan Elements

Although the Land Use Element and its accompanying map are often thought by many to be the most important part of the General Plan, State legislation requires that the various elements comprise an integrated, internally consistent, and compatible statements of goals, policies, and programs. This means that each of the General Plan Elements are equal in legal status and that the direction given by one element may not be superior or subordinate to that of any other element.

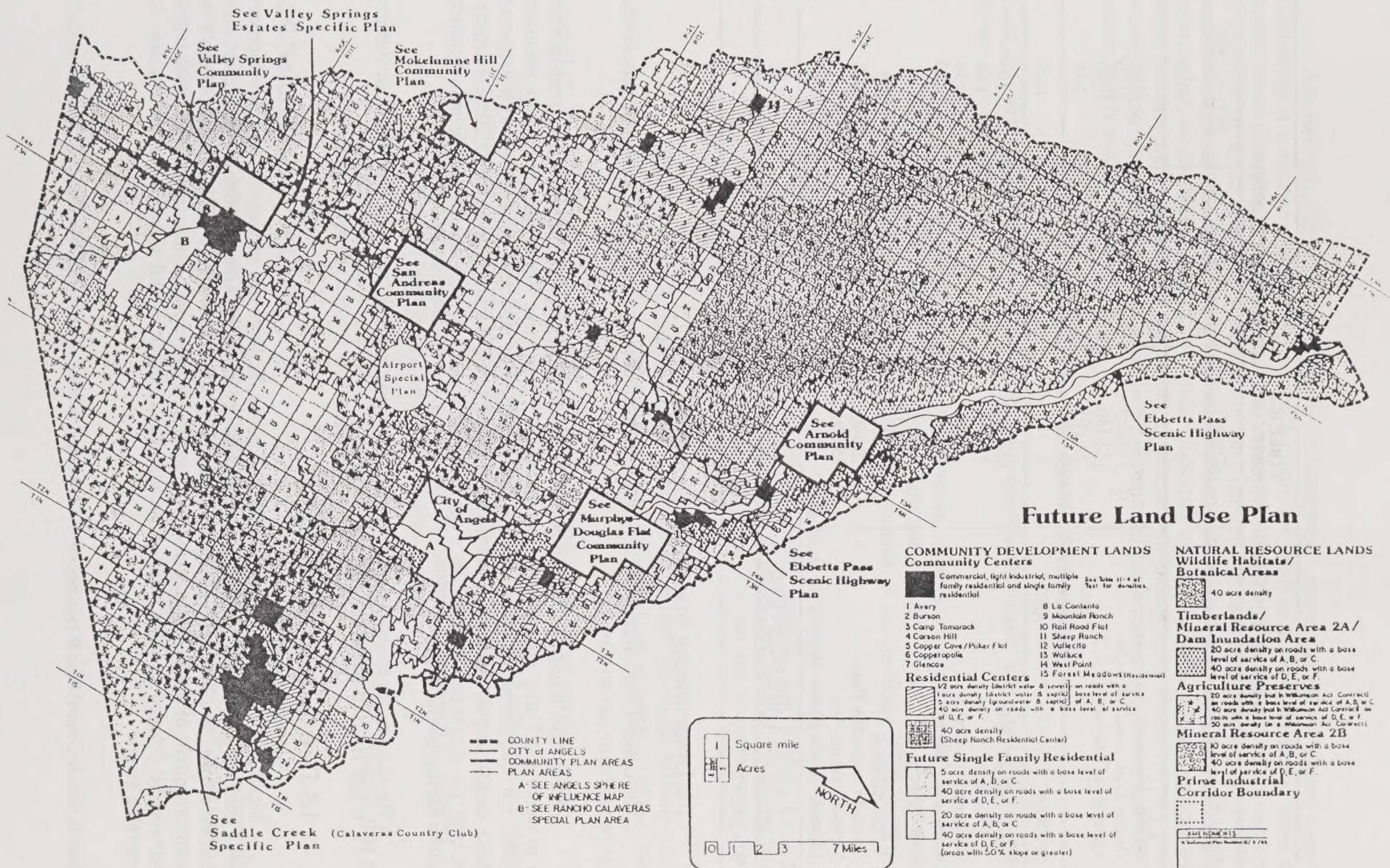
Many of the issues that are discussed in the Land Use Element overlap issues that may be addressed in other General Plan Elements. Almost any issue dealing with the physical characteristics of land in the County will have land use implications, even if specific issues such as habitat protection are not extensively addressed in the Land Use Element (See Future Land Use Plan, Page II-3). Policies which may affect development of a specific property are not necessarily stated in only one portion of the maps and text in each element. The applicability of policies described in other elements should be taken into consideration when determining the General Plan policies for a particular area or property.

This Land Use Element is closely tied to all other elements, especially the Conservation and Open Space Elements, which specifically identifies resource and open space areas. The policies contained in those Elements have been incorporated into the land use designations of this Land Use Element.

1.3 Land Use Categories

Based on land use capability, the General Plan divides the County into two basic categories: Natural Resource Lands and Community Development Lands. Consideration for land use designation is first given to lands which are most productive when used for resource development, such as agriculture, timber and mining, or which contain sensitive habitat, which are identified in more detail and discussed in the Conservation and Open Space Elements.

The remaining lands which do not fall into a natural resource category are considered for community development. Assignment to those categories is further examined from the standpoint of past development patterns and the provision of necessary facilities and services, such as roads and fire protection. In areas where residential development or communities already exist, the desirability of keeping new development in the vicinity of existing development may render the resource production in the area incompatible.



CALAVERAS COUNTY GENERAL PLAN 1996

Adopted December 9, 1996

**TABLE II-2
NATURAL RESOURCE/COMMUNITY DEVELOPMENT DISTRIBUTION**

LAND USE	ACREAGE	TOTALS	PERCENTAGE
NATURAL RESOURCE LAND		361,740	54.98
Wildlife, Botanical	72,540		11.02
Timber, Dam Area, MRA-2A	143,630		21.83
Agriculture Preserve, MRA-2B	122,450		18.61
	23,110		3.51
COMMUNITY DEVELOPMENT LAND		284,230	43.20
Future Single Family	184,120		28.01
> 50% Slope	10,940		1.66
Community Centers	3,600		0.54
Residential Centers	31,140		4.86
Industrial*			
Existing Zoning	8,200		
Prime Industrial	9,480		
Adopted Community Plans	28,340		4.30
Adopted Special Plans	25,000		3.79
Adopted Specific Plans	1,090		0.17
CITY OF ANGELS AND ITS SPHERE		11,950	1.82
TOTAL COUNTY		657,920	

1.4 Determining Maximum Densities

The General Plan utilizes "density" rather than "minimum parcel size." Lower density results in large minimum parcel size.

Parcels may in some instances possess two or more differing specifications on a parcel of land. To preserve the Plan's internal consistency, the more restrictive (lower density or large minimum parcel size) requirements apply. For example, a parcel of land may be identified as a protected wildlife habitat with 40 acre density, but may also be identified in a timber area with a 20 acre density. The land use would be designated as wildlife habitat and the 40 acre density established to protect wildlife habitat would apply.

The County has adopted density bonus provisions to conform to Government Code Section 65915, which is discussed in the Housing Element.

1.5 Development Flexibility

Flexibility in the design and provision of public facilities and services for new development in the County is essential for many developers. Flexibility often produces a better project design than would be created by adhering to rigid standards. Allowing developers to construct or contribute to the improvement of public facilities and services may enable development to proceed which might otherwise be delayed or even stopped because public facilities and services are not available at acceptable levels.

Another type of development flexibility is "clustering", sometimes called "density transfer". Clustering is a means by which lots or dwelling units are grouped in close proximity rather than spread evenly throughout a development, as in a conventional subdivision. As a result of clustering, a project's permitted density (i.e., number of lots) remains the same, but portions of the site are retained as open space. Cluster housing development is particularly appropriate in areas containing steep terrain, wildlife habitat, or resource lands. Clustering can also be used to create an open space buffer between residential development and more intense neighboring uses. Clustering may provide recreation and open space areas not possible in conventional subdivisions, and can result in reduced public facility and services costs.

GENERAL PLAN RECOMMENDATIONS

Goal II-1: Provide for flexibility in the construction and funding of public facilities and services for future development.

Policy II-1A: When public facilities and services, such as but not limited to water, waste disposal, roadways, and/or fire protection, are not available at required levels, permit a developer to build those facilities to specified standards, or to contribute proportional funds to build and service those facilities.

Implementation Measure II-1A-1: Work with all special districts and agencies to assess the availability and capacity of public facilities and services for future development and the need to improve those facilities and services to required levels. Condition new subdivision development to build or pay the proportional amount to build the appropriate facilities.

Implementation Measure II-1A-2: Calculate developer contributions toward public facilities and services to cover the costs of those facilities and services at the time of their construction.

Goal II-2: Provide for flexibility in site design for single family residential developments.

Policy II-2A: Allow clustering of single family lots in any land use designation permitting residential use, without increasing the permitted density of the area.

Implementation Measure II-2A-1: Utilize the Planned Development Combining Zone provisions of the County Zoning Code when necessary.

Implementation Measure II-2A-2: Require zoning to retain open space for that area from which the density was transferred.

2.0 Natural Resource Lands

Natural Resource Lands are those lands identified as containing resources for utilization and conservation. Policies relating to these lands are discussed in more detail in the Conservation and Open Space Elements.

The land use designations identified on the Future Land Use Map as Natural Resource Lands include Wildlife, Botanical, Agriculture Preserve, Timber Lands, Dam Inundation, Mineral Resource 2A, and Mineral Resource 2B.

GENERAL PLAN RECOMMENDATIONS

Goal II-3: Preserve and manage those lands identified as Natural Resource Lands for the future good of the general public.

Policy II-3A: Restrict density in Natural Resource Lands to ensure future use and conservation and use of the resources.

Implementation Measure II-3A-1: Allow the following maximum densities in Natural Resource Lands:

Wildlife, Botanical	One dwelling unit per forty acres
Agriculture Preserve	One dwelling unit per twenty acres when not in a Williamson Act contract One dwelling unit per fifty acres when in a Williamson Act contract
Timber Lands	One dwelling unit per twenty acres
Dam Inundation	One dwelling unit per twenty acres
Mineral Resource 2A	One dwelling unit per five acres, when consistent with Conservation Element Implementation Measure IV-7A-2 from page IV-14)
Mineral Resource 2B	One dwelling unit per five acres, when consistent with Conservation Element Implementation Measure IV-7A-2 from page IV-14)

3.0 Community Development Lands

Community Development Lands are those lands identified for community development. The land use designations identified on the Future Land Use Map as Community Development Lands include Community Plans, Special Plans, Specific Plans, City of Angels Sphere of Influence, Mixed Use/Master Project Area, Community Centers, Residential Centers, and Single Family Residential Areas. These designations are discussed in the following.

3.1 Community Plan Areas (PRC Section 21083.3)

Community Plans are a part of the County General Plan, although contained in a separate published booklet. Community Plan areas are designated for the areas surrounding and including the larger towns in the County where the greatest concentrations of single family, multiple family, commercial and industrial land uses are found. Plans shown on the Future Land Use Map have been adopted for Arnold, Mokelumne Hill, Murphys-Douglas Flat, San Andreas and Valley Springs. Additionally, the community of Avery is currently in the process of developing a Community Plan.

Community Plans contain a greater level of specificity regarding permitted land uses than are established under the General Plan. Community Plans show specific land uses on a parcel by parcel basis. They also augment the General Plan with respect to land use policies, consistent zoning, and issues of local concern. In this regard, the more specific Community Plan policies supplement and refine the policies of the General Plan. When a Community Plan does not address an issue that is covered in the General Plan, the policies of the General Plan apply.

GENERAL PLAN RECOMMENDATIONS

Goal II-4: Maintain Community Plans for areas of the County in which major growth is occurring.

Policy II-4A: Maintain and reinforce Community Plan areas as the sites which may permit high density single family residential, multiple family residential, commercial, light industrial, and community activities, in addition to Special and Specific Plans Areas, Mixed Use/Master Project Areas, and Community Centers.

Implementation Measure II-4A-1: Future high density single family residential, multiple family residential, commercial, and light industrial developments and zoning may be located within Community Plan areas.

Implementation Measure II-4A-2: The following densities apply to the adopted Community Plans:

Arnold Community Plan:
[Refer to Land Use Element Appendix]

Mokelumne Hill Community Plan:
[Refer to Land Use Element Appendix]

Murphys-Douglas Flat Community Plan:
[Refer to Land Use Element Appendix]

San Andreas Community Plan:
[Refer to Land Use Element Appendix]

Valley Springs Community Plan:
[Refer to Land Use Element Appendix]

Policy II-4B: Consider creation of Community Plans for major community areas without an adopted Community Plan, and consider use of assessment districts to pay for the development of such plans.

Implementation Measure II-4B-1: When requested by a representative group of residents, consider new Community Plan areas for regions generally meeting the following criteria:

- Population base of 1000 or more;
- An area logically tied together geographically and socially.

Policy II-4C: Keep Community Plans current and consistent with local issues and community values, and the General Plan.

Implementation Measure II-4C-1: Review and update Community Plans as needed, consistent with state law and amendment procedures contained in the Plans.

Policy II-4D: Review proposals for development in Community Plan areas for potential traffic impacts.

Implementation Measure II-4D-1: Utilize the criteria in the Circulation Element to mitigate traffic impacts of all new development in Community Plan areas.

Policy II-4E: Consider and balance the impacts of resource production and community development uses within Community Plan areas.

Implementation Measure II-4E-1: Review applications for resource production zoning and associated use permits within Community Plan areas for compatibility with adjacent land uses and policies of the Community Plan.

3.2 Special Plan Areas (CGC Section 65302)

Special Plans are a part of the General Plan, although contained in a separate published booklet. They are intended to serve areas possessing architectural or historic characteristics, scenic resources, or special use. Special Plans are utilized primarily by larger subdivisions, scenic highway corridors, and areas of the County which share a common bond. The County has adopted the Ebbetts Pass Highway Special Plan, the Rancho Calaveras Special Plan, and the County Airport Special Plan.

Special Plans contain a greater level of specificity regarding permitted land uses than are established in the General Plan with respect to land use policies, consistent zoning, and issues of local concern. In this regard, the more specific Special Plan policies supplement and refine the policies of the General Plan. When a Special Plan does not address an issue that is covered in the General Plan, the policies of the General Plan apply.

GENERAL PLAN RECOMMENDATIONS

Goal II-5: Maintain Special Plans for areas of the County possessing unique resource or development issues.

Policy II-5A: Maintain and reinforce Special Plan areas as sites with unique resource or development issues, but which can include high density single family residential, multiple family residential, commercial, light industrial, and community activities, in addition to Community and Specific Plans Areas, Mixed Use/Master Project Areas, and Community Centers.

Implementation Measure II-5A-1: While future high density single family residential, multiple family residential, commercial, and light industrial developments and zoning may be located within Special Plan areas, it is not required.

Implementation Measure II-5A-2: The following densities apply to the adopted Special Plans:

Airport Special Plan:

[Refer to Land Use Element Appendix]

Ebbetts Pass Highway Special Plan:
[Refer to Land Use Element Appendix]

Rancho Calaveras Special Plan:
[Refer to Land Use Element Appendix]

Policy II-5B: Consider creation of Special Plans as appropriate to address unique areas or issues, and consider use of assessment districts to pay for the development of such plans.

Implementation Measure II-5B-1: When requested by a representative group of residents, consider new Special Plans for areas meeting the following criteria:

- There is general consensus that specific issues need to be addressed; or
- There are unique scenic, historic, or architectural characteristics; or
- There is a service, issue, or requirement of the area which needs to be addressed in more detail than found in the General Plan.

Policy II-5C: Keep Special Plans current and consistent with Special Plan issues and values, and the General Plan.

Implementation Measure II-5C-1: Review and update Special Plans as needed, consistent with state law and amendment procedures contained in the Plans.

Policy II-5D: Review proposals for development in Special Plan areas for potential traffic impact.

Implementation Measure II-5D-1: Utilize the criteria in the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to mitigate traffic impacts of all new development in Special Plan areas.

Policy II-5E: Consider and balance the impacts of resource production and community development uses within Special Plan areas.

Implementation Measure II-5E-1: Review applications for resource production zoning and associated use permits within Special Plan areas for compatibility with adjacent land uses and policies of the Special Plan.

3.3 Specific Plan Areas (CGC Section 65454)

A Specific Plan is an implementation tool for the General Plan established for a specified area with multiple land uses, and is contained in a separate published booklet. The purpose of a Specific Plan is to provide a long term comprehensive development plan for an area consistent with the broader provisions of the General Plan. Specific Plan adoption is generally initiated at the request of an individual project proponent or small group of property owners. The County has adopted two specific plans, the Calaveras Country Club Specific Plan (Saddle Creek) and the Spring Valley Estates Specific Plan.

THE UNIVERSITY OF CHICAGO
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Implementation Measure II-6D-1: Review applications for resource production zoning and associated use permits within Community Centers for compatibility with adjacent land uses and policies of the Specific Plan.

3.4 City of Angels Sphere of Influence

The Angels Sphere of Influence represents the ultimate potential incorporated territory of the City of Angels for which land use classifications, consistent zoning districts, and development policies are included in the City's General Plan. While the County has legal jurisdiction over the unincorporated sphere of influence, General Plan policies contemplate that the processing of subdivisions, rezoning and use permits in this area will be coordinated with city policies and recommendations. Changes to the County General Plan relating to the Angels Sphere of Influence require corresponding changes to the City's General Plan.

The City's land use map for its sphere of influence (See Sphere of Influence map Page II-12) is incorporated into the County General Plan. Table II-3 shows the population densities, building intensities and consistent zones for the Angels Sphere of Influence.

GENERAL PLAN RECOMMENDATIONS

Goal II-7: Provide comprehensive, coordinated planning for the Angels Sphere of Influence.

Policy II-7A: Forward all projects to be considered by the County located within the Angels Sphere of Influence to the City for review and comment.

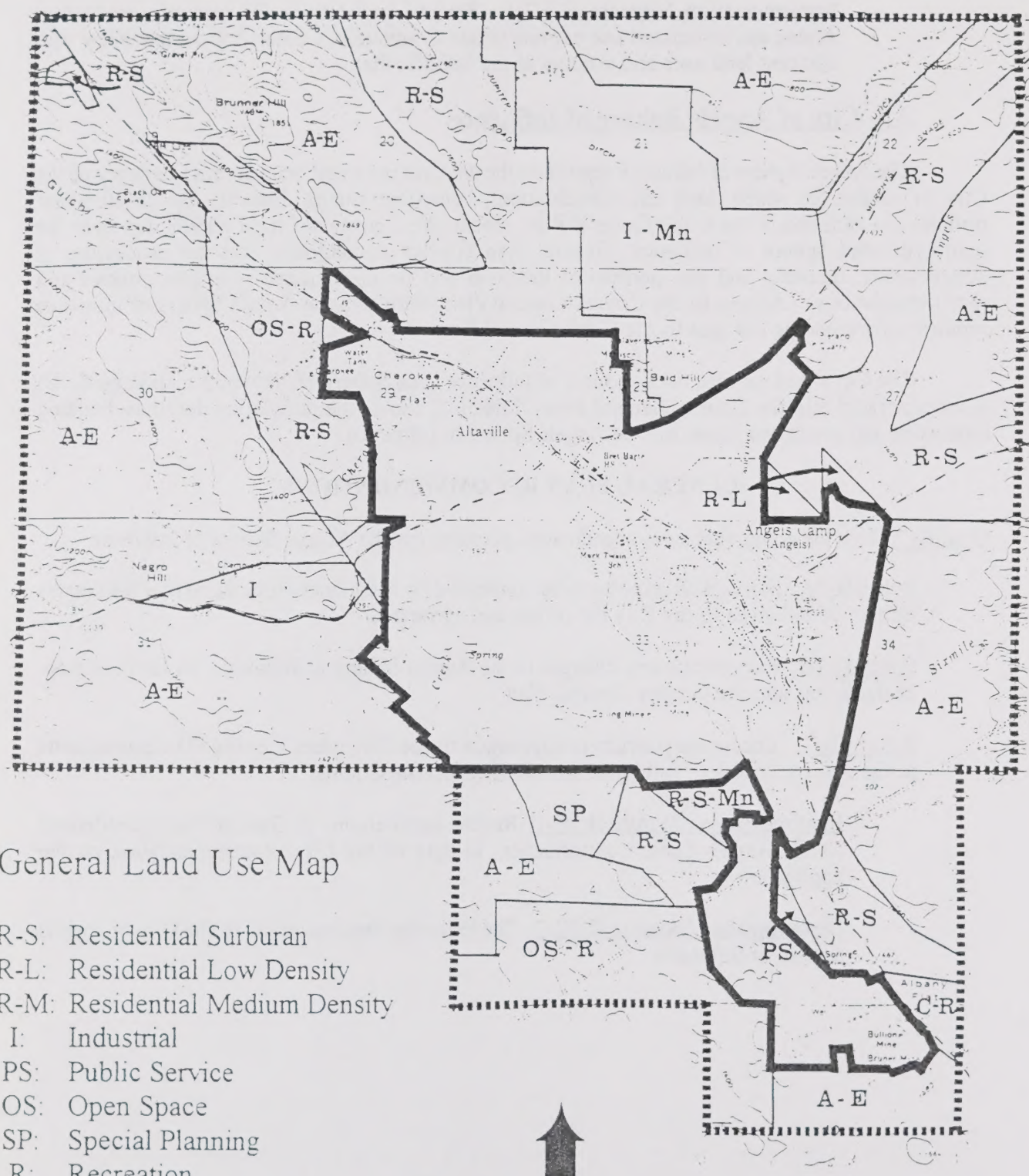
Policy II-7B: Incorporate any changes to the Angels Sphere of Influence, its land use map, designations into the County General Plan.

Policy II-7C: Encourage concurrent application to the City when General Plan amendments to the Angels Sphere of Influence are submitted to the County.

Implementation Measure II-7C-1: Review applications for General Plan amendments to the Angels Sphere of Influence in light of the City's recommendation on the application.

Implementation Measure II-7C-2: The following densities apply to the City of Angels Sphere of Influence:

CITY OF ANGELS SPHERE OF INFLUENCE



General Land Use Map

- R-S: Residential Suburban
- R-L: Residential Low Density
- R-M: Residential Medium Density
- I: Industrial
- PS: Public Service
- OS: Open Space
- SP: Special Planning
- R: Recreation
- Mn: Mining
- A-E: Agriculture Estates
- C-R: Commercial Recreation

Sphere of Influence

Adopted December 9, 1996

TABLE II-3
CITY OF ANGELS SPHERE OF INFLUENCE

LAND USE DESIGNATION Public Services	CONSISTENT ZONES	POPULATION DENSITY	BUILDING INTENSITY
Residential Suburban No matter which services	A1 RA	0.13 0.26	20.00 5.00
Low Density Residential Public water, septic or sewer Well water and septic	RR RA, RR-5	2.56 0.26	1.00 5.00
Medium Density Residential Public water and sewer Public water and septic Well water and septic	R1-7200 R1, RR RR-5	15.36 2.56 0.26	0.16 1.00 5.00
Agriculture Estates	A1	0.13	20.00
Industrial	M1, M2, M4	Same as Community Centers	
Public Service	PS		
Mining	ME	Same as Industrial combining zone	
Commercial-Recreation	REC, RC	Same as Commercial	
Special Planning: Special or Specific Plan required prior to zoning.			
The Rural Home Industry zone is consistent with RR, RA, A1, AP, TP. Resource zones (A1, AP, GF, TP, ME) are consistent in all designations. The PS zone is consistent in all designations.			

3.5 Mixed Use/Master Project Area

Historically, development projects in Calaveras County have involved single land uses on relatively small tracts of land. The Mixed Use/Master Project Area land use designation offers the opportunity for a more comprehensive land use planning approach.

Instead of having smaller tracts of land with single uses, this General Plan designation allows a mix of uses to be located throughout a large site, enhancing the overall quality of the development.

Infrastructure and recreational amenities can be coordinated to provide maximum benefits. In addition, complex infrastructure and public facility issues posed by mixed use developments on large sites are subject to further, more detailed review as part of a Specific Plan or similar planning process required of all projects in this designation.

The Mixed Use/Master Project Area General Plan designation is intended for large scale projects with integrated mixed uses, including single and multiple family housing, commercial uses, and recreation and open space uses. Mixed Use/Master Project Areas must have direct frontage or

other suitable access onto one of the County's four state highways, and be serviceable by sewer and water infrastructure. It is also understood that projects of this type will develop in phases extending over a period of 5 to 20 years.

Residential Uses.

The majority of the development within this land use category would be single family residential. Actual determinations of maximum allowable density would be consistent with the standards set forth in the General Plan. Clustering of units may be suitable to enhance the preservation of open space.

Nonresidential Uses.

The Mixed Use/Master Project Area designation allows for a broad range of nonresidential uses, including commercial uses typically found in neighborhood and community areas, such as retail and service establishments, office and financial uses, and light industrial uses. Other nonresidential uses include privately operated commercial recreation areas, such as golf courses and equestrian facilities. Resource production uses are also compatible with the Mixed Use/Master Project Area designation.

GENERAL PLAN RECOMMENDATIONS

Goal II-8: Provide for the integration of residential and nonresidential uses within large developments.

Policy II-8A: When large tracts of land are proposed for development, encourage an integrated mix of uses and a master planned infrastructure.

Implementation Measure II-8A-1: Apply the Mixed Use/ Master Project Area designation to projects meeting the following criteria:

- State highway frontage or other suitable state highway access;
- Proximate to existing sewer and water infrastructure;
- Includes both residential and nonresidential uses;
- Phased development over approximately 5 to 20 years.

Implementation Measure II-8A-2: Require a Specific Plan or suitable equivalent planning process for all projects within the Mixed Use/Master Project Area designation.

Implementation Measure II-8A-3: Utilize criteria set forth in the General Plan to determine maximum density allowed within Mixed Use/Master Project Areas.

3.6 Community Centers

The Community Center designation is assigned to the smaller towns for which Community, Special or Specific Plans have not been prepared. The areas designated Community Centers on the General Plan Future Land Use Map tend to follow the boundaries of the County's original townsites

or early subdivision maps. In addition to Community, Special, and Specific Plan areas, Community Centers tend to be centers of regional life in the County. The following Community Centers are designated in the General Plan: Avery, Burson, Camp Tamarack, Carson Hill, Copper Cove/Poker Flat, Copperopolis, Glencoe, La Contenta, Mountain Ranch, Rail Road Flat, Sheep Ranch, Vallecito, Wallace, and West Point.

Public facilities and services are generally available within Community Centers, allowing the more intensive land usage generated by multi-family, commercial and light industrial uses. Public facilities and services within Community Centers generally include adequate roads, water supply, sewage disposal, and the availability of fire protection services. Road capacity and the capability of roads to handle development are addressed in Community Centers on a project-specific basis using the policies and requirements contained in the Circulation Element and County Road Ordinance.

GENERAL PLAN RECOMMENDATIONS

Goal II-9: Provide for orderly development within Community Center boundaries.

Policy II-9A: Maintain and reinforce Community Centers as the sites which may permit high density single family residential, multiple family residential, commercial, light industrial, and community activities, in addition to Community, Special and Specific Plans Areas, and Mixed Use/Master Project Areas.

Implementation Measure II-9A-1: Future high density single family residential, multiple family residential, commercial, and light industrial developments and zoning may be located within Community Centers.

Implementation Measure II-9A-2: Utilize the following percentages of land area to land use as a guide for planning within the Community Center:

Single family residential - 60%

Multifamily residential - 10%

Commercial/light industrial - 15%

Open space - 15%

Policy II-9B: Review development in Community Centers to ensure proposed intensity or density does not exceed the capacity of available facilities and services.

Implementation Measure II-9B-1: Consider a maximum density of 6 units per acre for single family residential and 12 units per acre for multiple family residential development on parcels served by public water and sewer systems.

Implementation Measure II-9B-2: Consider a maximum density of one unit per acre for single family residential and six units per acre for multiple family residential development on parcels served by a public water system and a private septic system conforming with the policies of the Safety Element.

Policy II-9C: Review proposed development within Community Centers for traffic impacts.

Implementation Measure II-9C-1: Apply the project specific criteria of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to all new development and subdivision activity within Community Centers.

Implementation Measure II-9C-2: Consider requests for zone changes to multiple family residential, commercial or light industrial zones on parcels which do not derive access from a through or connector road only when all of the following criteria are met:

- The proponent has submitted a preliminary plan prepared to the specifications of the Planning Director to provide for access and public facilities and services; and
- The proponent has posted improvement security satisfactory to the County to cover the cost of any necessary improvements based on the approved preliminary plan.

Policy II-9D: Consider and balance the impacts of resource production and community development uses within Community Centers.

Implementation Measure II-9D-1: Review applications for resource production zoning and associated use permits within Community Centers for compatibility with adjacent land uses.

Goal II-10: Discourage strip commercial development from occurring within Community Centers.

Policy II-10A: Encourage clustering in the siting of new multiple family residential, commercial, and industrial land uses in Community Centers.

Implementation Measure II-10A-1: Allow cluster development when appropriate in light of existing and proposed land uses.

Goal II-11: Maintain appropriate Community Center boundaries.

Policy II-11A: Consider appropriate increases in territory receiving the Community Center designation.

Implementation Measure II-11A-1: Review applications for expansion of Community Centers in light of the following criteria:

- The proposal is accompanied by a specific project application; and
- The area to be added to an existing Community Center is contiguous and forms a logical boundary; and
- The proposed land use and zoning are consistent with all Community Center policies.

Implementation Measure II-11A-2: Consider applications for new Community Centers in light of the following criteria :

- The area is centered around and includes an existing townsite or residential subdivision; and
- The area has existing multiple family residential, commercial, and/or light industrial land uses; and
- The area is within a fire protection district; and
- The area is served by a public water system.

3.7 Residential Centers

Because of their concentrated population and available public facilities and services, Community Centers may influence adjoining lands to be subdivided into residential areas. To encourage orderly development in these areas, the General Plan designates "Residential Centers" around Community Centers. As the County grows, portions of Residential Centers may become logical extensions of Community Centers.

GENERAL PLAN RECOMMENDATIONS

Goal II-12: Designate Residential Center areas to provide for orderly residential development.

Policy II-12A: Establish and expand Residential Center boundaries as appropriate to include logical, contiguous area suitable for residential development.

Implementation Measure II-12A-1: Utilize Residential Centers around Community Centers to indicate areas best suited for single family residential development using the following criteria:

- The area is located within a fire protection district or public water district;
- The area is located within one-half mile of a minor arterial or major collector road;
- The area is socially and geographically tied to the nearest Community Center.

Policy II-12B: Review proposed development in Residential Centers for impacts on facilities and services.

Implementation Measure II-12B-1: Allow a maximum density of one dwelling unit per 40 acres within the Sheep Ranch Residential Center, and implement zoning consistent with that density.

Implementation Measure II-12B-2: Allow the following maximum densities when considering subdivision applications within all other Residential Centers:

- One dwelling unit per five acres for parcels with domestic water wells and individual septic systems;
- One dwelling unit per acre for parcels with public water supply and individual septic systems;
- One dwelling unit per one-half acre for parcels with public water supply and public sewage disposal.

Policy II-12C: Review proposed development within Residential Centers for traffic impacts.

Implementation Measure II-12C-1: Apply the project specific criteria of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to all new development and subdivision activity within Residential Centers.

Policy II-12D: Consider and balance the impacts of resource production and community development uses within Residential Centers.

Implementation Measure II-12D-1: Review applications for resource production zoning and associated use permits within Residential Centers for compatibility with adjacent land uses.

3.8 Single Family Residential Areas

Single family residential areas are used primarily for single-family dwellings, although they may also be used for secondary non-residential purposes. Residential areas in the County are located within towns, residential subdivisions, and rural settlements.

Most towns in the County are located in Community Centers and Community or Special Plan areas. Rural settlements are found in areas of the County presently subdivided into parcels of 5 to 40 acres in size.

Approximately one-half of the privately owned parcels of land in the County are unimproved. The majority of those unimproved parcels are designated for single-family residential and range in size up to 40 acres.

Allowable density on future single-family residential lands outside of Community Centers, Residential Centers, and Community, Special or Specific Plan areas is governed by a number of factors including the level of service on roads serving the area, domestic water supply, available sewage disposal methods, fire protection services, school district capacity, and topography.

GENERAL PLAN RECOMMENDATIONS

Goal II-13: Ensure that future single-family residential land divisions or increased density occur on lands capable of supporting such land use.

Policy II-13A: Determine appropriate densities and parcel sizes based on land capability, level of service of County access roads, availability of potable water, sewage disposal methods, slope characteristics, public facilities and services, and public safety considerations.

Implementation Measure II-13A-1: Allow newly created single-family residential land divisions of less than 40 acres or an increased density of more than one house per forty acres provided County roads providing access to the land have a service level of A, B or C.

Implementation Measure II-13A-2: Allow newly created subdivision of five or more lots of forty acres or larger, provided County roads providing access to the land have a service level of A, B, or C.

Implementation Measure II-13A-3: Apply the following criteria to determine densities higher than one dwelling per five acres:

- Within Community Centers:
Parcels served by public water and public sewer: one dwelling per 7,000 square feet;
Parcels served by public water and conventional septic: one dwelling per 1 acre;
Parcels served by individual well and conventional septic: one dwelling per 5 acres.
- Within Residential Centers:
Parcels served by public water and public sewer: one dwelling per one-half acre;
Parcels served by public water and conventional septic: one dwelling per 1 acre;
Parcels served by individual well and conventional septic: one dwelling per 5 acres.
- Within Community Plan areas, Special Plan areas, or Specific Plan areas:
Refer to the adopted Plan document for parcel size determination.
- Outside Community Plan, Special Plan, Specific Plan, Community Centers, Residential Centers, or Mixed Use/Master Project Areas: one dwelling per five acres.

Policy II-13B: Review proposed residential development for traffic impacts.

Implementation Measure II-13B-1: Apply the project specific criteria of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to all new residential development and subdivision activity.

Policy II-13C: Review proposed residential development for impacts on natural resource lands.

Implementation Measure II-13C-1: Consider on a case-by-case basis the impacts of proposed residential development on natural resource lands.

Goal II-14: Achieve consistency between land use designations and zoning.

Policy II-14A: Permit resource production zones for agriculture, timber, and mining on lands designated future single-family residential when compatible with adjoining land uses and zoning.

Implementation Measure II-14A-1: Rezone all lands presently within interim zones to conform to General Plan policies.

Goal II-15: Protect the reasonable use of property in the County.

Policy II-15A: Allow the construction of one single-family residence on each legally created parcel capable of supporting such use.

Implementation Measure II-15A-1: Permit the construction of a single-family residence on each legally created parcel in the County when:

- Such use is permitted in the zoning district applied to the parcel;
- The parcel has a source of potable domestic water satisfying County requirements;
- The parcel has an approved method of sewage disposal;
- No known health or safety hazards exist on the parcel.

4.0 Industrial Areas

Industrial areas are those areas designated principally for processing, fabrication, or manufacturing of goods and commodities.

Existing Industrial Lands are those currently in operation or currently zoned light industrial (M1), general industrial (M2), rural home industry (RM), or business park (M4). Existing industrial lands provide major sources for employment in Calaveras County. Mining and timber are the largest industrial uses in Calaveras County. Many lands with industrial zoning are former or current mining sites. Before 1978 when the County added provisions to its Zoning Code specifically to address mineral extraction in agricultural areas, industrial zoning was applied to mining sites. These industrial zones are still recognized.

Future Industrial designations and zoning are to be located within Community Centers, Community, Special and Specific Plan areas, Mixed Use/Master Project Areas, or the Industrial Corridor (See Section 4.1). Efforts by the Calaveras County Economic Development Company continue to assist in bringing new industries into the County. While the major industrial attraction to Calaveras County remains access to raw materials, technological developments, affordable real estate, and an available work force make Calaveras County increasingly attractive to non-resource industries.

GENERAL PLAN RECOMMENDATIONS

Goal II-16: Enable existing industries to maintain and expand their operations in the County.

Policy II-16A: Retain existing industrially zoned lands, unless the property owner requests otherwise.

Implementation Measure II-16A-1: Recognize legally established existing industrial zones as a consistent zone within the Community Development/Future Single Family Residential and Natural Resource Designations.

Goal II-17: Provide for new industrial development in areas designated by the General Plan which allow industrial designations.

Policy II-17A: Allow the Industrial designation and zoning in Community, Special and Specific Plan areas, Mixed Use/Master Project area, Community Centers, and the Industrial Corridor.

Implementation Measure II-17A-1: Consider requests for industrial zoning, consistent with the policies as defined in the land use categories of the General Plan and individual plans.

Implementation Measure II-17A-2: Use all of the following criteria for siting light industrial uses and zoning in Community Centers:

- The subject property has direct access to a minor arterial or major collector; and
- The subject property is served by public water and sewer, or has proposed sources of water and sewage disposal approved by the County Department of Environmental Health; and
- Development of the subject property for industrial use is compatible with neighboring land uses and zoning; and
- The requested zoning is M1, RM, or M4.

Policy II-17B: Review proposed industrial development for traffic impacts.

Implementation Measure II-17B-1: Apply the project specific criteria of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to all new industrial development and subdivision activity.

4.1 Industrial Corridor

A corridor paralleling Highway 12 between San Andreas and the San Joaquin County line has been established as the area of the County where major industrial development is generally encouraged to locate. This corridor is called the Industrial Corridor, and establishes a Policy Boundary within which the Industrial designation and new industrial zoning may be permitted.

The lands within this Industrial Corridor are generally level, have access to State Highway 12 and, in many locations, are served by public water, fire protection services, natural gas, and good electrical power distribution. The Industrial Corridor includes a mix of land uses, and, due to the significant acreage within the corridor, it is not the intent of the General Plan that the entire corridor should be designated, rezoned and developed into industrial uses. There are numerous areas within the Industrial Corridor presently developed as rural settlements, planned subdivisions, Community Centers and Community Plan areas.

While land in the Industrial Corridor has the potential to accommodate industrial zoning districts, siting of future uses and zoning within the Corridor must be compatible with other types of existing and potential development in the general vicinity. In addition, additional lands within the corridor, based upon a Specific or Special Plan, may be planned for supporting residential and commercial uses.

Road capacity and the capability of roads to handle development will be addressed in the Industrial Corridor using the policies and requirements contained in the Circulation Element and County Road Ordinance.

GENERAL PLAN RECOMMENDATIONS

Goal II-18: Provide for industrial development to occur within the Industrial Corridor.

Policy II-18A: Give priority to industrial land uses on appropriate parcels within the Industrial Corridor.

Implementation Measure II-18A-1: Lands with existing industrial zoning within the corridor shall be designated as Industrial, unless located within a Community Plan Area, Special Plan Area, Specific Plan Area, Mixed Use/Master Project Area, or Community Center.

Implementation Measure II-18A-2: Review the existing land uses within the boundaries of the Industrial Corridor and revise the boundaries of the Industrial Corridor to exclude those areas that have already been developed or approved for residential use.

Policy II-18B: Review lands within the Industrial Corridor for new industrial zoning based on compatibility with surrounding land uses, access, noise impacts, level of service, and availability of public facilities and services.

Implementation Measure II-18B-1: Review the existing land uses within the vicinity of the Industrial Corridor, identify acreage suitable for future planned development to include industrial uses and potential industrial parks, and preserve those designated areas within an Industrial Corridor Special Plan Area, and also amend the policy boundary accordingly.

Implementation Measure II-18B-2: Review and identify other areas of the County suitable for industrial uses, and amend the plan to appropriately designate the lands.

Implementation Measure II-18B-3: Require a general plan amendment for a Special Plan, Specific Plan, or industrial designation when approving new industrial zoning.

Implementation Measure II-18B-4: Consider applications for zone changes to M1, M2, or M4 on parcels in the Industrial Corridor meeting all of the following criteria:

- The parcel size can meet the development criteria with respect to adequate water and sewer facilities;
- Compatibility with the surrounding land uses can be demonstrated;

Implementation Measure II-18B-5: Apply criteria of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to all new development activity within the Industrial Corridor.

4.2 Rural Home Industries

The rural home industry zone provides a basis for small scale industry that is larger than a Rural Home Business in terms of employees, traffic generation, and operations, yet small enough to be compatible with a rural residential lifestyle. A key factor separating a Rural Home Industry from a traditional industrial use is that the owner resides on the same property as the business. A Rural Home Industry is a secondary use to the primary residential use of the parcel. The business must also be compatible with residential uses on adjoining parcels.

GENERAL PLAN RECOMMENDATIONS

Goal II-19: Appropriately provide for Rural Home Industries as accessory uses to residences.

Policy II-19A: Require conditional use permits for all Rural Home Industries, and consider permit applications on a case-by-case basis, using established criteria.

Policy II-19B: In the review of applications for Rural Home Industries, the existence of another Rural Home Industry in the general vicinity is not to be considered precedent on which to approve new applications.

Implementation Measure II-19B-1: Consider applications for Rural Home Industries on a case-by-case basis utilizing all of the following criteria:

- The subject property is five acres or larger;
- The proposed Rural Home Industry does not have the potential to become a nuisance;
- The business owner resides on the subject property on a full-time, permanent basis;
- The subject property has frontage and access onto a state highway or any public road meeting county road improvement standards for its functional service classification;
- The road serving the subject property is either publicly maintained or included in a special district or mandatory maintenance association;
- The proposed Rural Home Industry complies with all county, state and federal laws relating to health and safety.

5.0 Recreation Oriented Commercial

The abundance of natural recreation resources in Calaveras County gives rise to commercial uses providing support facilities to recreation areas. Examples include campgrounds, boat rentals and storage, marine fuel stations, and ski area facilities. Because the location of recreation resources is governed largely by natural features such as caves, lakes and rivers, associated commercial development is appropriate in these areas. The General Plan addresses this special circumstance in the policies which follow.

Location-specific recreation uses are distinguishable from general commercial uses which serve, but are not directly tied to particular recreation resources. Examples of recreation oriented businesses which are not directly linked to the location of recreation resources include sporting goods stores and restaurants whose patrons include visitors to distant recreation areas. It is the intent of

the General Plan to accommodate the location of commercial development which is truly tied to a specific recreation resource, as opposed to all recreation oriented businesses.

GENERAL PLAN RECOMMENDATIONS

Goal II-20: Provide for the development of recreation oriented commercial uses which are necessarily tied to the location of recreation resources.

Policy II-20A: Allow location-specific recreation-oriented commercial uses outside of Community, Special, and Specific Plan areas, and Community Centers.

Implementation Measure II-20A-1: Identify locations in the County possessing natural features appropriate for associated recreation oriented commercial development.

Implementation Measure II-20A-2: Utilize the Recreation Zone of the County Zoning Code to promote General Plan objectives regarding recreation oriented commercial uses.

Policy II-20B: Encourage master planned recreation developments to enhance the long term use and development of recreation resources.

Implementation Measure II-20B-1: Utilize the Recreation Zone of the County Zoning Code to provide for planned recreation developments.

Policy II-20C: Review proposed recreation oriented commercial uses for traffic impacts.

Implementation Measure II-20C-1: Require project-specific improvements prescribed in the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code, to mitigate potential road impacts upon development of these parcels.

TABLE II-4

**POPULATION DENSITY ♦ BUILDING INTENSITY
CONSISTENT ZONES**

* (For explanation, see notes following the charts)

NATURAL RESOURCE LANDS

Land Use Classifications	Consistent Zones ₁	Maximum Density ₂
Levels of Service ₃ A, B, or C are required for parcels under 40 acres		
Wildlife, Botanical	A1-40, GF-40 AP-50 TP-160	40 acres 50 acres 160 acres
Agriculture Preserves	A1-20 AP-50	20 acres ₄ 50 acres
Timberlands	A1-20, GF-20 AP-50 TP-160	20 acres 50 acres 160 acres
Dam Inundation	A1-20-EP	20 acres
Mineral Resource 2A	RA-5 A1-20, GF-20 AP-50 TP-160	5 acres ₅ 20 acres 50 acres 160 acres
Mineral Resource 2B	RA-5 RA-10 A1-20, GF-20 AP-50 TP-160	5 acres ₅ 10 acres 20 acres 50 acres 160 acres

1 - CONSISTENT ZONE - Indicates the smallest consistent zone, or most intense consistent zone permitted in the land use designation.

2 - MAXIMUM DENSITY - The number of dwelling units per acre based on the land use designation in the General Plan.

3 - LEVEL OF SERVICE: As assigned in the Special Provisions to the Road Ordinance, or as set by other criteria. See Circulation Element Table III-1 for explanation.

4 - The 20 acre density is an automatic holding density which is applicable when a Williamson Act contract expires.

5 - Five acre parcels are possible in MRA lands with findings consistent with the Conservation Element.

COMMUNITY DEVELOPMENT LANDS

Community Centers

A. Residential Areas			
1. Single-Family Residential			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density
A, B, or C	Public, public Public, septic Well, septic	R1 R1-1, RR-1 RR-5, RA-5	7,000 sq. ft. 1 acre 5 acres
D, E, or F	Public, public Public, septic Well, septic	RR-40, RA-40 RR-40, RA-40 RR-40, RA-40	40 acres 40 acres 40 acres
2. Multi-Family Residential			
A, B, or C	Public, public Public, public Public, septic Public, septic Well, septic Well, septic	R2-7000 R3-3500 R2-1 R3-1 R2-5 R3-5	3,500 sq. ft. 3,500 sq. ft. 20,000 sq. ft. 7,000 sq. ft. 2.50 acres 1.67 acres
D, E, or F	New multiple family residential not permitted		
B. Commercial, Industrial, Public Service Areas			
1. Commercial			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density (Lot Coverage) -
A, B, or C	Public, public Public, septic Well, septic	RC, C1, C2, CP RC, C1, C2, CP RC, C1, C2, CP	100 %, less setback & landscaping requirements 100 %, less setback, septic & landscaping requirements 100 %, less setback, septic & landscaping requirements
D, E, or F	New Commercial or Industrial not permitted		

2. Light Industrial			
A, B, or C	Public, public	M1, RM, M4	100 %, less setback & landscaping requirements
	Public, septic	M1, RM, M4	100 %, less setback, septic & landscaping requirements
	Well, septic	M1, RM, M4	100 %, less setback, septic & landscaping requirements
D, E, or F	New Industrial zones not permitted		
Any level of Service	Any Service	PS, ME	No requirements
C. Resource Zones			
A, B, or C	Any Service	A1, GF	20 acres
D, E, or F	Any Service	A1-40, GF-40	40 acres
Any level of Service	Any Service	TP-160	160 acres
		AP-50	50 acres

6 - WATER and SEWAGE: Public - provided by special district; Well - individual private well or small water system; Septic - individual private conventional septic system.

7 - LOT COVERAGE - minimum parcel sizes are not established in commercial or industrial zones. Lot coverage is assigned based on the availability of water or method of sewage disposal, parcel sizes are preferred at no less than one acre with public water, and no less than five acres with well and septic, unless smaller parcels are approved by the Department of Environmental Health.

Residential Centers

A. Residential Areas			
1. Single-Family Residential			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density
A, B, C	Public, public	R1-20000, RR-20000	0.5 acres
	Public, septic	R1-1, RR-1	1 acre
	Well, septic	RR-5, RA-5	5 acres
D, E, F	Public, public	RR-40, RA-40	40 acres
	Public, septic	RR-40, RA-40	40 acres
	Well, septic	RR-40, RA-40	40 acres

Future Single Family Residential

1. Single-Family Residential			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density
A, B, C	Public, public	RR-5, RA-5	5 acres
	Public, septic	RR-5, RA-5	5 acres
	Well, septic	RR-5, RA-5	5 acres
D, E, F	Public, public	RR-40, RA-40	40 acres
	Public, septic	RR-40, RA-40	40 acres
	Well, septic	RR-40, RA-40	40 acres
2. Single-Family Residential with 50 % or greater slopes			
A, B, C	Any Service	RR-20, RA-20, A1	20 acres
D, E, F	Any Service	RR-40, RA-40, A1-40	40 acres

Industrial Corridor

The Industrial Corridor establishes a policy boundary within which the Industrial designation may be permitted. This section applies to potential industrial zones.			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density
A, B, C	Public, public	M1, M2, M4, RM	100 %, less setback & landscaping requirements
	Public, septic	M1, M2, M4, RM	100 %, less setback, septic & landscaping requirements
	Well, septic	M1, M2, M4, RM	100%, less setback, septic & landscaping requirements
D, E, F	Industrial uses not permitted		

Recreationally-oriented Commercial

A. Direct recreationally-oriented commercial uses			
Level of Service	Water, Sewer	Consistent Zones	Maximum Density
All levels	Public, public	REC	35 %
	Public, septic	REC	35 %
	Well, septic	REC	35 %
B. Indirect recreationally-oriented commercial uses shall be located where consistent with commercial uses and zoning.			

City of Angels Sphere of Influence

See Table II-3, Page II-11

In the event of amendments between the City's General Plan designations for its Sphere of Influence and the designations shown in the County General Plan, the City's designation shall take precedence until the County's amendment process is complete. The intent is that the County's designations within the Angels Sphere of Influence be consistent with the City's General Plan for the area.

Community, Special, & Specific Plans

See Tables in Land Use Element Appendix

See the applicable Community Plan for areas designated as Community Plan Areas on the Future Land Use Map (Arnold, Mokelumne Hill, Murphy-Douglas Flat, San Andreas, and Valley Springs). For Special Plans, see the Rancho Calaveras Ebbetts Pass Highway or the Calaveras County Airport plans. For Specific Plans, see Saddle Creek (previously Calaveras County Club) or Spring Valley Estates.

* IMPORTANT NOTES / EXPLANATIONS

The following items have a direct bearing on the determination of population density and building intensity.

- To determine population density, multiply the number of dwellings per acre by the persons per dwelling for the area.
- Minimum parcel size per dwelling or number of dwellings per maximum density mean the same number of dwelling units per acre.
- When multiple land use designations apply, the most restrictive land use takes precedence.
- Legally existing non conforming residential parcels may be zoned RR-X, if less than 5 acres, and RA-X if between 5 and 20 acres no matter which Natural Resource Lands classification that property is located within.
- Lands in the Industrial Corridor which may have a base General Plan designation within Natural Resource Lands are still eligible to be considered for M1, M2, and M4 zoning if otherwise consistent with the policies of this element related to the Corridor.
- Resource zones (A1, AP, GF, TP, RA) are consistent in any land use designation.
- The PS (Public Service) zone is consistent in all designations.
- The REC (Recreation) zone may be consistent in any Natural Resource Lands classification, provided that the development proposed concurrently with the rezoning request is inconsistent with the policies of this element.
- The RM (Rural Home Industry) zone is consistent with the RR, RA, A1, AP, GF, and TP zones.

TABLE II-4 (continued)

REFERENCE TABLE OF ZONING DISTRICTS

U	UNCLASSIFIED	Interim
HS	HIGHWAY SERVICE	Interim
A1	GENERAL AGRICULTURE	Resource
AP	AGRICULTURE PRESERVE	Resource
GF	GENERAL FOREST	Resource
TP	TIMBER PRODUCTION	Resource
RA	RESIDENTIAL AGRICULTURE	Resource
RR	RURAL RESIDENTIAL	Residential
R1	SINGLE FAMILY RESIDENTIAL	Residential
R2	TWO FAMILY RESIDENTIAL	Residential
R3	MULTIPLE FAMILY	Residential
RC	RURAL COMMERCIAL	Commercial
RM	RURAL HOME INDUSTRY	Home Business
C1	NEIGHBORHOOD COMMERCIAL	Commercial
C2	GENERAL COMMERCIAL	Commercial
CP	PROFESSIONAL OFFICES	Commercial
M1	LIGHT INDUSTRY	Industrial
M2	GENERAL INDUSTRY	Industrial
M4	BUSINESS PARK	Industrial
REC	RECREATION	Recreation
PS	PUBLIC SERVICE	Miscellaneous

6.0 Businesses in the Home

A significant number of the business licenses issued each year in Calaveras County are for businesses in the home. The County Zoning Code recognized several types of home businesses, and provides standards to ensure compatibility between home business activity and the character of the surrounding neighborhood. All home businesses must be secondary to residential property uses. Business activity of greater intensity than the Zoning Code allows for home businesses may be appropriately located in the Rural Home Industry or other commercial or industrial zone.

Residential Occupations are suited for residential areas with predominately small parcels. They are typically service oriented businesses or offices which do not require customer or client traffic to the home, rarely require a sign, generally cause no change to the exterior appearance of the home, and do not generate traffic above normal levels for single family residences.

Rural Home Businesses are suited for larger parcels typically found in rural and resource areas, which permit greater latitude in the operation of a business in the home. Larger parcel sizes provide a buffer between neighboring residences, reducing the potential for nuisances to arise. The greater the separation between a rural home business and an adjacent residence, the less likelihood of incompatibility.

Home Medical and Veterinary Clinics provide a means of bringing medical and veterinary services to rural areas of the County not otherwise served by those professionals.

GENERAL PLAN RECOMMENDATIONS

Goal II-21: Support economic growth and development in the County by providing for businesses in the home, in addition to regular commercial and industrial development.

Policy II-21A: Review proposed businesses in the home for subservience to residential use and compatibility with neighboring uses.

Implementation Measure II-21A-1: Utilize the County Zoning Code to impose standards for businesses in the home based on factors including parcel size, hours of operation, noise, odor, dust, traffic, waste disposal, and outdoor storage needs.

Implementation Measure II-21A-2: Utilize the County Zoning Code to impose standards for the appropriate siting of rural home medical and veterinary clinics.

7.0 Legally Existing Nonconforming Land Uses and Zoning

Some commercial, industrial and multi-family residential development is located in areas of the County which today would not accommodate those uses or zones. These long standing businesses and apartments predate the current General Plan, and in some cases predate the Zoning Ordinance.

Similarly, there exist undeveloped parcels which obtained legal commercial, industrial or multi-family residential zoning under different standards than those in effect today. Nonconformance may also apply to parcel sizes. For example, smaller parcels of land may exist than what is now called for in the General Plan. Those parcels may have been legally created under a previous Plan, the provisions of the Subdivision Map Act or prior law regulating the division of land, or may not have been subject to regulation at the time of their creation.

With the adoption of the 1982 County General Plan, the Board of Supervisors recognized these legally established uses and zones. It is the intent of the Board of Supervisors to continue to allow the use and development of legally existing nonconforming uses, zoning and parcels.

"Nonconforming" refers to a land use or parcel size which does not conform to present General Plan policies. "Legally existing" means that the use, zoning or parcel was legally established under regulations in effect at the time it was first commenced or created.

When legally existing nonconforming uses or zones are sited in areas where new commercial, industrial or multi-family development would not now be permitted, the "grandfathered" uses and zoning are exempted from requirements relating to functional service classifications and levels of service for roads on which they are located. Legally existing nonconforming uses are not exempt, however, from project-specific improvements required under the Circulation Element and Road Ordinance. Whenever an undeveloped parcel with legally existing nonconforming zoning develops the specific impacts of the project must be mitigated.

GENERAL PLAN RECOMMENDATIONS

Goal II-22: Continue to assure that all existing legally established parcels, uses and zoning retain their legal status.

Policy II-22A: Recognize as legally existing the uses, parcels and zoning which do not conform to current standards but which were legally established under the regulations in effect at the time they were first commenced or created.

Implementation Measure II-22A-1: Notwithstanding the land uses and densities prescribed by this General Plan or any ordinances enacted pursuant thereto, including any zoning ordinances or their amendments, any parcel or unit of land which has been previously created under the provisions of the Subdivision Map Act or any prior law regulating the division of lands or a local ordinance enacted pursuant thereto or was not subject to those provisions at the time of its creation, including any parcel or unit of land at the time legally created by deed or record of survey, shall not:

- be deemed to be an illegal parcel or unit of land or be denied issuance of a certificate of compliance or a conditional certificate of compliance under the provisions of the Subdivision Map Act.
- be required to merge with any other contiguous parcel(s) or unit(s) of land whether or not said other parcel(s) or unit(s) are held by the same owner.
- be denied the issuance of any permit or approval to develop the real property with a single-family residential structure, unless a specific written comment is made by a County public health or safety department that development of the affected parcel or unit of land would constitute a hazard to the public health or the public safety.

Implementation Measure II-22A-2: Any land use legally established under provisions of the regulations in effect at the time of establishment, shall be allowed to continue such use under the provisions of a nonconforming use in the zoning code.

Implementation Measure II-22A-3: Any commercial, industrial, or multifamily zoning legally existing within areas which under this General Plan would not be permitted, shall be considered consistent zoning within the designation.

Policy II-22B: Deem all uses and parcels not established in conformance with the General Plan or regulations in effect at the time the use or parcel was established or created, which prohibit said use or creation, to be illegal nonconforming uses and parcels, and prohibit their development, continued use or expansion.

Implementation Measure II-22B-1: Apply the provisions of the County Zoning Code relating to non-conforming uses and parcels.

Policy II-22C: For parcels having only a portion of their total area within a legally existing nonconforming zoning district, apply recognized legally existing nonconforming zoning to those

portions only and not to the entire parcel or to any other parcel under common ownership outside the nonconforming zoning district.

Implementation Measure II-22C-1: When expansion of legally existing nonconforming uses is proposed, require the property owner to meet the development requirements of the zoning district at the time of the proposed expansion.

Policy II-22D: Review proposed expansion or development of legally existing nonconforming uses for traffic impacts.

Implementation Measure II-22D-1: When legally existing nonconforming uses expand, or an undeveloped parcel with legally existing nonconforming zoning is to be developed, require project-specific improvements meeting the provisions of the Circulation Element and County Road Ordinance, Chapter 12.02 of County Code.

8.0 Schools

The administrative body of the school system in Calaveras County is the County Board of Education. The school system includes four school districts: Calaveras Unified, Vallecito Union Elementary, Mark Twain Union Elementary, and Bret Harte Union High. The districts operate ten elementary schools and four high schools.

Calaveras County is included in two community college districts: Yosemite and San Joaquin Delta. The Yosemite District has one campus in Modesto and another in Columbia. The San Joaquin Delta District has a campus in Stockton plus a college farm near Manteca. It also operates a natural habitat reserve near Mountain Ranch.

New residential land development can significantly impact the capacity of school systems.

DISTRICTS AND SCHOOLS	
Calaveras Unified Jenny Lind Mokelumne Hill Railroad Flat San Andreas Toyon Middle Valley Springs West Point Calaveras High Goldstrike High (Continuation) Crossroads (Educationally Handicapped)	Vallecito Union Michelson Hazel Fischer Avery Middle School
	Mark Twain Union Copperopolis Mark Twain
	Bret Harte Union Arnold High Bret Harte High Vallecito High (Continuation)

GENERAL PLAN RECOMMENDATIONS

Goal II-23: Strive to provide the highest quality of education facilities for all ages of County residents.

Policy II-23A: Review new development proposals for impacts on schools.

Implementation Measure II-23A-1: Work cooperatively with the County Board of Education and the various school districts regarding school site designations and fee assessments.

Implementation Measure II-23A-2: Evaluate development projects for the necessity of land dedication for future school sites.

9.0 Waste Disposal Systems

9.1 Solid and Liquid Waste

Solid waste includes refuse, paper, discarded appliances, and semi-solid wastes derived from septic tanks, referred to as septage. State and federal laws regulating waste disposal practices are being increasingly implemented to ensure that environmental health hazards are effectively addressed.

Disposal and Transfer Sites

There are two landfill sites in the county (see Solid Waste Facilities, Page II-35). The Rock Creek landfill is operated by the county, and an asbestos disposal site is operated by Calaveras Asbestos, Ltd.

The new landfill at Rock Creek was opened in 1990. The landfill is located on a portion of a 200-acre site and is expected to serve the needs of the county for 35 or more years.

There are six transfer stations for the Rock Creek Landfill. They are located in Wilseyville, Avery, Paloma, Red Hill, San Andreas, and Copperopolis.

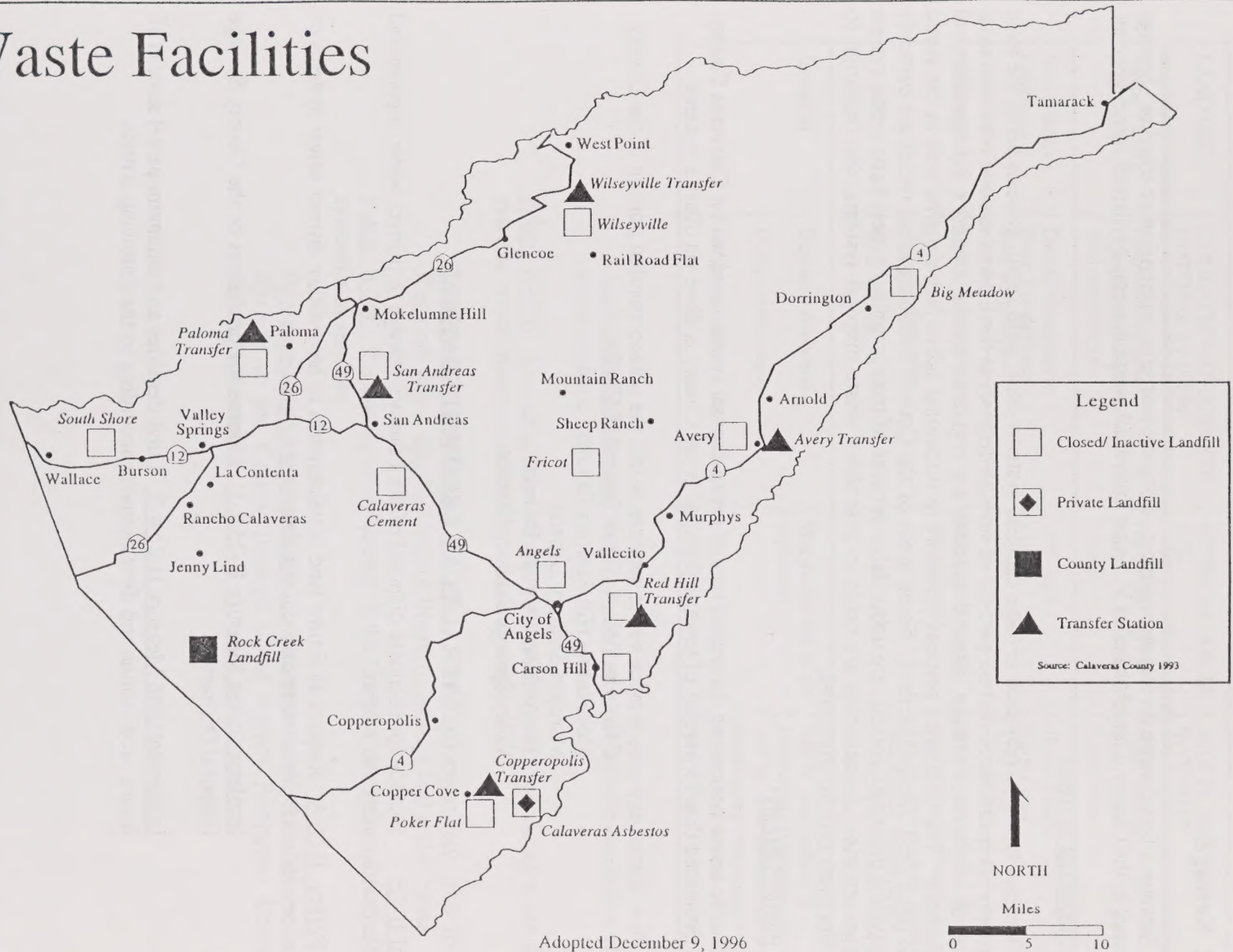
GENERAL PLAN RECOMMENDATIONS

Goal II-24: Provide for environmentally acceptable disposal of the County's solid and septic wastes.

Policy II-24A: Continue to develop and operate the Rock Creek Landfill site in accordance to the approved plans.

Implementation Measure II-24A-1: Work cooperatively with the California Integrated Waste Management Board toward achieving this goal.

Solid Waste Facilities



9.2 Sewage

Sewage is liquid waste containing organic or inorganic matter in suspension or solution. Sewage disposal in the County is largely handled by either individual waste systems or district sewer systems.

Individual Systems

Various types of individual sewage disposal systems exist, with septic systems being the most common. It is estimated that 65 percent of sewage disposal in the County is done with individual systems. Individual sewage disposal systems are regulated by the County's Sewage Disposal Ordinance. The Ordinance pertains primarily to traditional subsurface systems such as the septic tank/leach field disposal method. Some areas of the County, including areas which are currently subdivided into small parcels, are unbuildable because of their inability to meet basic septic system design criteria. As advances are made in alternative waste disposal systems, this limitation to development may be eliminated.

Public Systems

Public sewer systems are the second type of waste disposal system used within Calaveras County. It is estimated that 35 percent of sewage disposal in the County is done via district systems.

Five district agencies provide sewer services within the unincorporated portion of the County:

- Calaveras County Water District (CCWD)
- Mokelumne Hill Sanitary District
- Murphys Sanitary District
- San Andreas Sanitary District
- Valley Springs Sanitary District

GENERAL PLAN RECOMMENDATIONS

Goal II-25: Provide for adequate disposal of the County's sewage to protect water supplies and public health, safety and welfare.

Policy II-25A: Require all future land developments to have either district sewer systems or acceptable individual waste disposal systems.

Implementation Measure II-25A-1: Enforce the provisions of the County Sewage Disposal Ordinance.

Implementation Measure II-25A-2: Limit densities and minimum parcel sizes in all future subdivisions and developments according to the following criteria:

LAND USE	DOMESTIC WATER/WASTE DISPOSAL SYSTEM	MINIMUM PARCEL SIZE	MAX DENSITY OR INTENSITY
Single Family Residential	District water/sewer District water/septic Well water/septic	7000 sq ft 1 acre 5 acres	1 per 7000 sf 1 per 1 acre 1 per 5 acres
Multi-family Residential	District water/sewer District water/septic Well water/septic	7000 sq ft 1 acre 5 acres	12 per 1 acre 6 per 1 acre 3 per 1 acre
Commercial	District water/sewer District water/septic Well water/septic	Min. parcel size as per approved	100 %. less setback & landscaping requirements 100 %. less setback, septic & landscaping requirements 100%. less setback, septic & landscaping requirements
Industrial	District water/sewer District water/septic Well water/septic	Min parcel size as per approved	100 %. less setback & landscaping requirements 100 %. less setback, septic & landscaping requirements 100%. less setback, septic & landscaping requirements

Implementation Measure II-25A-3: Monitor and enforce correction of failing septic systems.

Policy II-25B: Encourage the development of alternative individual waste disposal systems which minimize pollution and water usage.

Implementation Measure II-25B-1: Work cooperatively with the State Regional Water Quality Control Board on sewage and water issues.

Policy II-25C: Encourage sewer districts in the County to improve and expand sewer systems and services.

Implementation Measure II-25C-1: Achieve orderly expansion of sanitary districts in the County through Local Agency Formation Commission (LAFCO) review.

CIRCULATION ELEMENT

The purpose of the Circulation Element is to establish transportation goals and policies, and to establish specific implementation measures to assure that the transportation system in Calaveras County has adequately addressed the planned growth for the County through the year 2010. The element is divided into two parts. Part 1 addresses the road system. Part 2 addresses the balance of the transportation system (public transit, bicycle, pedestrian and equestrian traffic, scenic highways, airports, railroads, and pipelines).

1.1 Legal Authority

The Circulation Element is prepared pursuant to Section 65302(b) of the California Government Code. The Circulation Element is required to address the location and extent of existing and planned transportation routes, terminals, and other local public utilities and facilities. It is further required to be consistent with the other elements of the General Plan, accommodating future travel demand and contributing to, rather than inhibiting, the attainment of desired land use patterns in the Land Use Element.

1.2 Relationship to Other Elements

The law emphasizes that the Circulation Element be coordinated with the Land Use Element. The transportation plan, policy, and implementation measures established by utilizing the same projections of future population and economic activity as does the Land Use Element, by using the same geographic distribution of future population and economic activity as expressed in the Land Use Element map, and by designing the transportation plans and policies to contribute to the achievement of the planned land-use pattern.

Part 1: ROAD SYSTEM

The road system consists of the State Highways, County Roads, and private roads used for motor vehicle traffic. Part 1 addresses those aspects of existing and planned road networks, including road maintenance and improvements.

2.0 Introduction

Projected increases in population will result in increased demand on roads within the County. To maintain the road system's adequacy due to such growth, policies relating to road classifications and levels of service are correlated with population density and land uses set forth in the Community Development Element.

2.1 Definitions

The following definitions apply to this Part:

- A) Average Daily Traffic: The number of vehicles, actual, estimated, or projected, traveling a road segment per day.

- B) Committed Average Daily Traffic: Current average daily traffic plus projected future traffic based on existing undeveloped parcels on a road or road segment.
- C) Community Area: Any Community Plan Area, Specific Plan Area, Special Plan Area, Mixed Use/Master Project Area, Community Center, or Residential Center.
- D) Degradation of LOS: Occurs when the level of service is reduced or affected due to actual or projected traffic impacts.
- E) Road Improvement Mitigation (RIM) Fees: Fees charged by the County for road improvements to offset cumulative impacts caused by land development. The amount of fees charged corresponds to the need for improvements attributable to a particular development. The monies are not used for general maintenance, but for design studies, engineering, and actual improvements.
- F) Level of Service (LOS): A term used to denote the ease with which traffic moves along a road at a consistent speed. It is a measure of convenience, not a measure of safety. Levels of service are divided into categories "A" through "F", and then for County roads, into speed limits to allow consideration for terrain, traffic flow, and road purpose. When determining LOS in community areas, consideration must also be given to routine delays associated with traffic control devices, crosswalks, turning, parking and generally higher density land uses. LOS categories are presented in the following table:

TABLE III-1

<u>Level</u>	<u>Traffic Condition</u>
LOS "A"	Free flow conditions; Low volumes; High operating speed; Uninterrupted flow; No restriction on maneuverability; Drivers maintain desired speeds; Little or no delays.
LOS "B"	Stable flow condition; Operating speeds beginning to be restricted.
LOS "C"	Stable flow but speed and maneuverability restricted by higher traffic volumes.
LOS "D"	Approaching unstable flow; Low speeds.
LOS "E"	Lower operating speeds; Volume at or near capacity; Unstable flow.
LOS "F"	Forced flow conditions; Low speeds; Volumes above capacity; Stoppages for long periods because of congestion.

- G) Project Specific Improvements: Improvement requirement imposed that applies specifically to the project being considered, based on the project's traffic generation,

its base zoning district, and the condition of the road affected by the project. The purpose of project specific improvements is to promote safe ingress and egress and to ensure that the project's specific impact to the road system is mitigated.

- H) Proportional Share of Traffic: The percentage of a category of traffic volume used to divide the responsibility for financing the overall improvement of the road. The four traffic categories are presented in the following Table:

TABLE III-2

Intercounty traffic --	traffic traveling through the County to points beyond the County.
Intracounty traffic --	the movement of traffic from one point to another point within the County.
Destination traffic --	traffic traveling from another County to a specific location within this County.
Local traffic --	neighborhood traffic that uses the road as the starting or ending point for residential purposes within the same community.

- I) Road Basin, Road Region: The areas served by a road or network of roads.
- J) Road Ordinance: The ordinance adopted by the Board of Supervisors to implement the Circulation Element.
- K) Service Classifications: To differentiate between roads located inside and outside community areas, the County divides all State- and County roads into two categories, Regional Roads and Community Roads. Roads within each category are classified to reflect traffic associated with present and future land use.

Regional Roads: Regional roads are public and private roads which are located outside Community Plan areas, Specific Plan areas, Community Centers Residential Centers, Mixed Use/Master Project Area and Special Plan areas unless the Special Plan indicates otherwise. The service classifications for regional roads are:

a) Major Arterials: Major arterials are multi-lane freeways which handle high volumes of traffic. There are no major arterials in Calaveras County, and based on land use projections to the year 2010, currently it is not projected there will be a need for major arterials in the County.

b) Minor Arterials: Minor arterials are roads which connect community areas and traffic destination centers (such as recreational facilities and resources) and provide corridors to move traffic into and through the County. All State Highways in the County are currently minor arterials.

c) Major Collectors: Major collectors are roads which move traffic from one community to the next. Major collectors move traffic from minor arterials into and out of community areas.

d) Minor Collectors: Minor collectors move traffic from traffic generators (such as residential areas) to major collectors or minor arterials. Minor collectors are generally located within residential areas where they connect a number of local roads to a major collector.

e) Local Roads: Local roads typically serve low-volume traffic generators located directly on the road.

f) Commercial Roads: Commercial roads are roads serving commercial development or properties.

g) Industrial Roads: Industrial roads are roads serving industrial development or properties.

f) Cul-de-Sac: Cul-de-Sac roads are roads that have only one point of access.

h) Minimum Service Roads: Minimum Service Roads are general access roads built to the County's minimum design standards.

i) Emergency Access Roads: Emergency Access Roads are roads which provide an alternate means of ingress and egress for emergency vehicles and evacuation.

Community Roads: Community roads are public and private roads located within a Community Plan Area, Specific Plan Area, Special Plan Area, Mixed Use/Master Project Area, Community Center, or Residential Center. The service classifications for community roads are:

a) Through Roads: The primary roads on which traffic moves into and out of a community area. A route through a community area may be considered a through road, even though a change of road is needed to complete the trip through the community area. Such a series of roads or road segments is a "through route". Outside of community areas, through roads transform into minor arterials or major or minor collectors.

b) Connector Roads: Connector roads move traffic within a community area onto a through road. Outside of community areas, connector roads transform into minor collectors.

c) Residential Roads: A residential road connects primarily single-family residential areas to connectors or through roads.

d) Commercial Roads: Commercial roads are roads serving commercial development or properties.

e) Industrial Roads: Industrial roads are roads serving industrial development or properties.

f) Cul-de-Sac: Cul-de-Sac roads are roads that have only one point of access.

g) Minimum Service Roads: Minimum Service Roads are general access roads built to the County's minimum design standards.

g) Emergency Access Roads: Emergency Access Roads are roads which provide an alternate means of ingress and egress for emergency vehicles and evacuation.

3.0 Public and Private Roads, New Construction, Access

A public road is one which is dedicated and established for public use. Public roads in Calaveras County include highways in the State-maintained system; roads accepted into the County-maintained system; roads maintained by a County Service Area or Community Services District; and roads used by the public, but for which no public agency has the responsibility of maintenance.

A private road is one which is not dedicated for general public usage. The County does not maintain private roads. There are private roads that are the subject of formal maintenance agreements and private roads for which no maintenance agreements exist.

There are several locations in the County where new County-maintained roads may be needed in the future. The locations of the new roads are shown on Transportation Maps 3 and 4, and in Community, Special and Specific Plans, and Mixed Use/Master Project areas. New roads are anticipated to be financed primarily by those developing or subdividing property in the area.

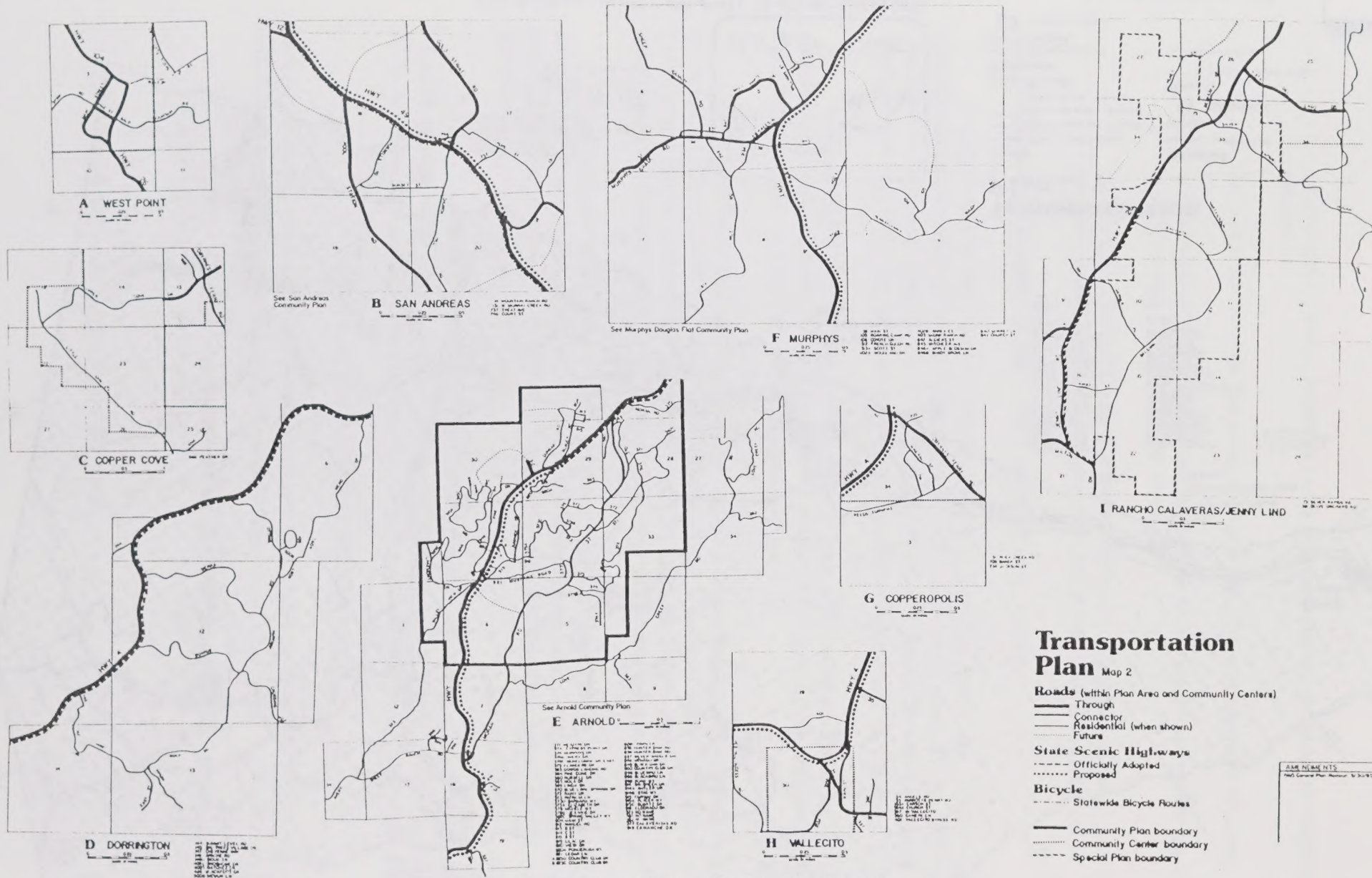
New roads identified in Community, Special or Specific Plans, Mixed Use/Master Project areas, and the General Plan, must be constructed as new development occurs. Depending on the area, and committed capacity of roads, a developer may be required to construct the entire road, or merely contribute a proportional share of the cost.

In order to maintain a smooth flow of traffic within community areas, alternate access points should be identified along roads. Alternate access points may consist of shared driveways, frontage roads, or other road access to reduce the number of encroachments onto public and private roads.

GENERAL PLAN RECOMMENDATIONS

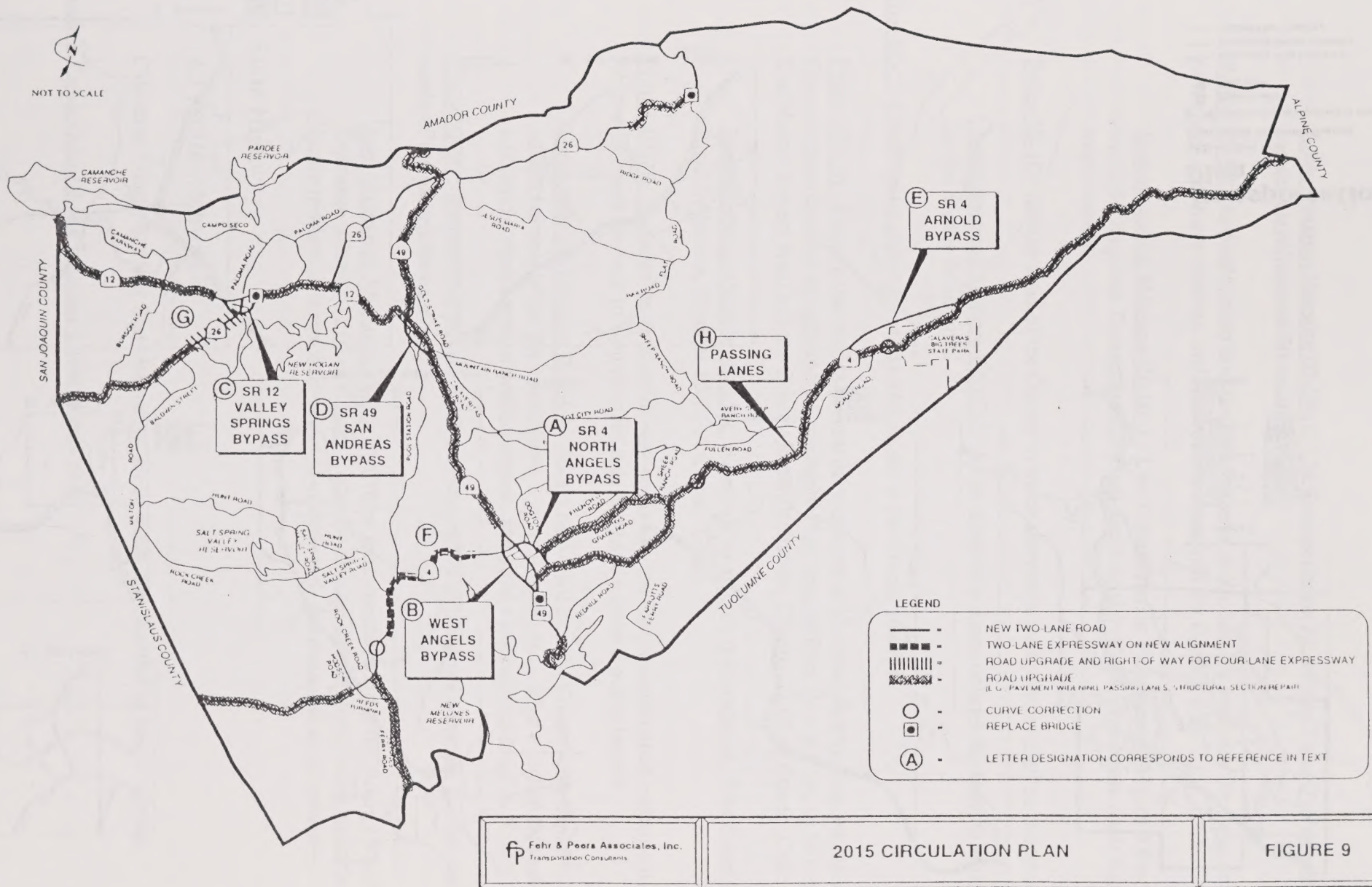
Goal III-1: Identify a system of classification and new road placement consistent with the existing road system, to reflect areas suitable for land development.

Policy III-1A: Classify existing State highways and County roads using the service classifications set forth in the definitions.



CALAVERAS COUNTY GENERAL PLAN 1985

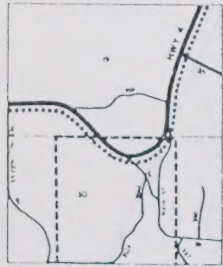
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Adopted December 9, 1996

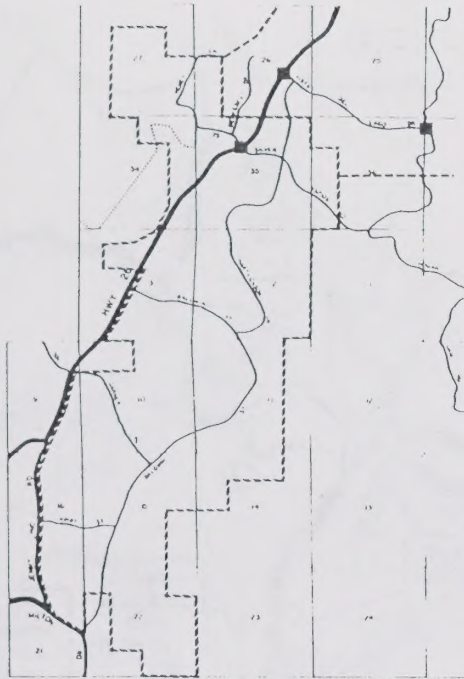


A WEST POINT

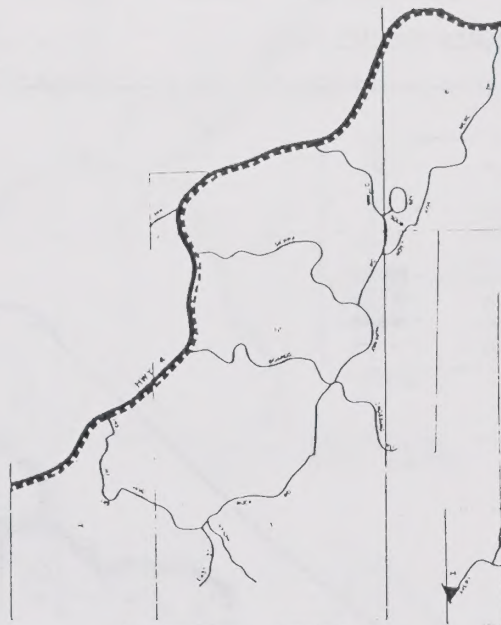


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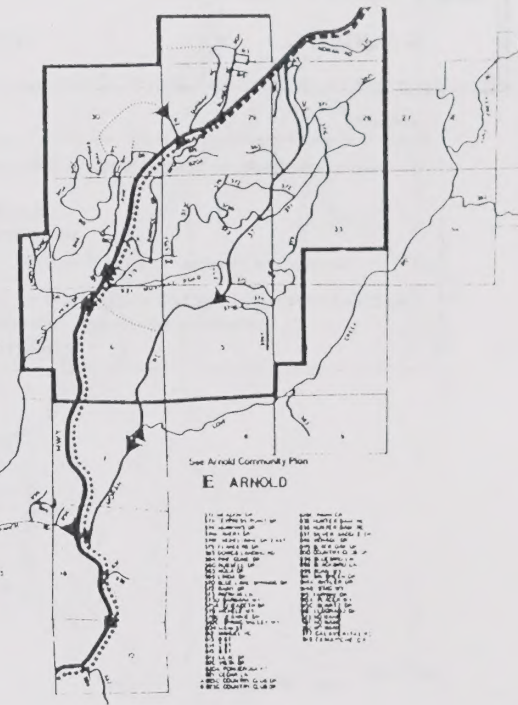
See San Andreas Community Plan



I RANCHO CALAVERAS/JENNY LIND



D DORRINGTON



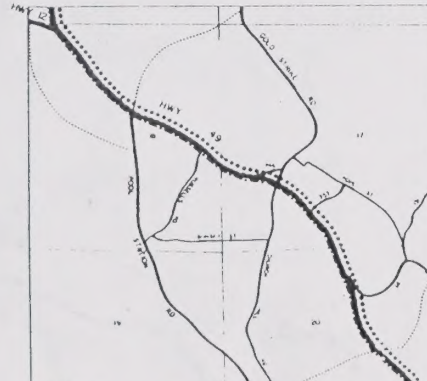
E ARNOLD

See Arnold Community Plan



F MURPHYS

See Murphys Douglas Flat Community Plan



B SAN ANDREAS

See San Andreas Community Plan



G COPPEROPOLIS

C COPPER COVE

Transportation Plan Map 4

Scheduled and Proposed Improvements

- ▶◀ Start/end of realignment or reconstruction
- Passing lane
- Turn lane
- Community Plan boundary
- - - Community Center boundary
- - - Special Plan boundary

Implementation Measure III-1A-1: Use Transportation Plan Maps 1 and 2 to identify service classifications for existing roads.

Policy III-1B: As development and land use patterns occur, identify locations for proposed new roads and improvements, and incorporate them into the General Plan.

Implementation Measure III-1B-1: Use Transportation Plan Maps 3 (Figure 9 from the 1996 Regional Transportation Plan) and 4 to identify proposed new roads and improvements.

Policy III-1C: Identify areas of the County in which alternate access policies shall be adopted.

Implementation Measure III-1C-1: Adopt alternative access policies for specific areas as the need is determined.

Goal III-2: Create and maintain a road system to serve the County's needs.

Policy III-2A: Require that access to new development and to newly created parcels meet County standards under any applicable Community Plan, Specific Plan, Special Plan, or Mixed Use/Master Project area, and the County Road Ordinance, Chapter 12.02 of County Code.

Implementation Measure III-2A-1: Continue to enforce the standards of the County Road Ordinance, Chapter 12.02 of County Code.

Policy III-2B: Consider acceptance of new roads into the County-maintained system only when such roads are built to County standards and have a general public benefit.

Implementation Measure III-2B-1: Accept new roads into the County-maintained road system only when the roads serve a general public area, have a logical through connection, serve a general public purpose, and have a level of service of A, B, or C.

Policy III-2C: Require that private roads be constructed to standards adequate to meet the needs of the parcels they serve.

Implementation Measure III-2C-1: Utilize road standards from the County Road Ordinance (Chapter 12.02 of County Code) for new residential, commercial, multiple family residential, recreation- oriented commercial, and industrial development.

4.0. State Highways

4.1 State Highways

Calaveras County has four State highways, all of which are classified as minor arterials.

Highway 4 - Highway 4, the Ebbetts Pass Highway, serves the south county connecting from Stanislaus and San Joaquin to Alpine Counties. Highway 4 is a trans-Sierra route.

Highway 12 - This east-west route connects San Joaquin County with San Andreas at Highway 49.

Highway 26 - The trans-county west-east route serving the north county is Highway 26, connecting San Joaquin County via Valley Springs, Mokelumne Hill, and West Point to Amador County. The most easterly portion connects West Point to Amador County near Pioneer.

Highway 49 - Highway 49 is the only north-south route. It traverses central Calaveras County and connects Amador in the north and Tuolumne in the south.

4.2 State Highway Improvements

Caltrans is required by State law to conduct long-term State Highway System planning. Long-term planning includes analyzing existing and future travel conditions for each segment of a given route, establishing concept levels of service, identifying deficiencies, and proposing capacity-increasing improvements necessary to maintain adequate levels of service. The System Management Plan for District 10 approved in 1989 by Caltrans, is the State's long range planning and policy tool to guide decisions related to managing and improving the State Highway System within the District.

State funding is inadequate to make all capacity improvements throughout the State desired by Caltrans, and by regional and local government. Therefore, it is necessary to prioritize capacity improvement projects.

The highway system is broken into three general groups for planning purposes by Caltrans (District 10 System Management Plan, 1989). These groups prioritize the highway network by importance in the movement of people and goods and are as follows:

- 1) Major Routes. Major routes are heavily traveled inter-regional connections. These routes and route segments are classified as principal arterials. They are generally constructed to freeway and expressway standards.
- 2) Routes of Regional Importance. Routes of regional importance provide a network between smaller communities and rural areas. They also serve as connections to and between major routes. They are generally constructed as conventional highways, with stretches of expressway at spot locations.
- 3) Secondary Routes. Secondary routes are routes of lesser importance to the highway system. They are used primarily for local trips and have relatively low daily traffic usage.

In Calaveras County, there are no major routes. Caltrans has identified State Routes 4, 12, and 49 as routes of regional importance, and State Route 26 as a secondary route.

4.3 Scheduling Improvements

State planning for highways is accomplished through several planning processes that identify capacity improvement projects as they are needed. The California Transportation Commission is charged with maintaining the State Transportation Improvement Plan (STIP) biennially. The STIP is a list of projects selected from the Regional Transportation Plans (RTPs) and Caltrans. Only after inclusion in the STIP is a specific date established for improvement projects to be undertaken. If a local jurisdiction determines that specific improvements to a State highway are important local priorities, a funding contribution from the local agency can expedite inclusion of the project in the biennial STIP.

The Calaveras County Local Transportation Commission prepares the Regional Transportation Plan that identifies and prioritizes regional road improvement projects needed in Calaveras County. The improvement projects are based upon a County-wide traffic model and traffic forecasts. The RTP identifies capacity improvement needs for the State highways, and insufficient State funding to complete all the desired improvements.

A Precise Plan for State Route 26 was prepared by Caltrans and endorsed by the Board of Supervisors in June of 1996. The Precise Plan illustrates the ultimate highway centerline by realigning the existing route to meet minimum standards, and the identification of potential shorter projects with the total length of realigning and upgrading. The plan also includes the setting of approximate right-of-way boundaries to aid the county in establishing minimum developer setbacks.

Levels of Service (LOS)

Caltrans determines existing level of service (LOS) for all State highways and also establishes "concept levels of service" for each segment of all State highways. The concept LOS is the minimum acceptable service the highway should provide the traveling public. The concept LOS establishes the goal of service adequacy, and the threshold below which a route is in need of improvement. Caltrans indicates not all segments of a route must be brought up to the concept LOS over the 20-year planning period, but significant progress must be made in order for the concept levels of service to be considered reasonable and achievable.

Factors Caltrans uses in establishing concept LOS for a route are terrain, surrounding land use, travel characteristics, relative importance of the route, relationship to other routes, urban and rural characteristics, functional classification, importance to the economy, public's perceived need, safety, and cost of improvement. The County recognizes that not all segments of the State Highway will always be maintained at the Caltrans concept LOS as pointed out by the Regional Transportation Plan, the base document utilized by the EIR analysis, but maintains the concept LOS as the ultimate goal.

The approved 1989 System Management Plan specifies the following concept LOS for State Routes in Calaveras County:

Table III-3
Concept LOS

SR 4	C
SR 12	C
SR 26	
West Calaveras County boundary to west intersection with SR 12	D
West intersection with SR 12 to east intersection with SR 12	C
East intersection with SR 12 to end	Maintain only
SR 49	C

Project Specific Improvements

Traffic generated by new development may impact the existing LOS on the State highway as it passes a project or at the intersection of a project's access to the State highway. Therefore, a developer may be required, as part of project approval, to make project specific improvements in order to maintain existing State highway LOS at the project's connection with the State Highway. Project specific improvements include, but are not limited to, left turn lanes, acceleration/ deceleration lanes, adequate encroachment width and onsite stacking distance, or traffic control signals.

General Improvements

General improvements, or capacity improvements, include, but are not limited to, changes in width, alignment, right of way, passing and auxiliary lanes, or similar construction to improve the LOS and achieve or maintain the concept LOS of a State highway. These improvements benefit the general public as well as developers.

State highway improvement and maintenance are the responsibility of the State. State funding is inadequate to make all capacity improvements desired by Caltrans. Therefore, it may become necessary for a local contribution to be made toward the cost of desired improvements to State highways in Calaveras County, in order to accomplish desired improvements.

Funding for general improvements on State highways, made necessary by new development, may be provided by a road improvement mitigation fee. The funds generated by road improvement mitigation fees are deposited in a trust fund for each State highway or State highway segment impacted by a development project. The amount of the road improvement mitigation fee for a project is based on traffic generated by the project and the 20 year projected development potential in the project vicinity.

A developer may be required both to pay a road improvement mitigation fee into the State highway trust fund and to make project specific improvements on a State highway serving a project. If a project specific improvement is also identified as a necessary general improvement, the costs of the project specific improvement will be subtracted from the road improvement mitigation fee. No payment will be required where project specific improvements exceed road improvement mitigation fee totals.

GENERAL PLAN RECOMMENDATIONS

Goal III-3: Secure funding for State highway improvements needed to keep pace with increased development to provide for the public safety.

Policy III-3A: Establish short and long term goals for State highway improvements identified in the County Regional Transportation Plan.

Implementation Measure III-3A-1: The County will identify and transmit to the Local Transportation Commission for inclusion in the Regional Transportation Plan State highway improvements necessary to prevent capacity deficiencies and to provide adequate levels of service on State highways in Calaveras County.

Policy III-3B: Advance the priority status of improvement projects on State highways in Calaveras County.

Implementation Measure III-3B-1: Urge the California Transportation Commission to include priority State highway improvements in Calaveras County in the biennial State Transportation Improvement Plan.

Implementation Measure III-3B-2: As appropriate, the Board of Supervisors may use the following funding mechanisms, individually or in combination, to pay for circulation and/or improvement projects:

- 1) State and Federal transportation funding;
- 2) Local sales tax increases as allowed by State law;
- 3) Road improvement mitigation fees;
- 4) Special Assessment Districts for improvement projects;
- 5) Dedication of land or other transportation improvements by developers; and
- 6) Other appropriate funding mechanisms.

Goal III-4: Provide and maintain a State highway system with capacity to serve projected State highway traffic at acceptable levels of service.

Policy III-4A: Utilize Caltrans' concept levels of service as guidelines for establishing acceptable levels of service on State highways and to determine improvements to be required of new development.

Implementation Measure III-4A-1: As appropriate, require traffic analysis for new development that may result in the degradation of a State highway below the concept level of service or that may otherwise have a significant impact on the State highway serving the development. Traffic analysis includes identification of all State highway impacts of the project and potential mitigation measures to avoid degradation of levels of service.

Policy III-4B: Consult with Caltrans for recommendations whether new development necessitates general improvements and/or project specific improvements to maintain the existing service level on any affected State highway.

Implementation Measure III-4B-1: At the time of permit approval, require developers to fund or construct project specific improvements necessary to maintain the existing level of service on State highways impacted by their development projects.

Implementation Measure III-4B-2: Address potential impacts of State highway safety deficiencies as part of project approval.

Implementation Measure III-4B-3: At the time of permit approval, require mitigation for new development impacting State highway segments currently below the concept level of service. Means of mitigation include, but are not limited to dedication of land for right-of-way, construction of general improvements, and proportionate contribution to funding general improvements.

Implementation Measure III-4B-4: Utilize the Precise Plan for State Route 26 prepared by Caltrans when reviewing development projects for setback requirements.

Goal III-5: Offset cumulative impacts to State highways caused by land development.

Policy III-5A: Apportion the mitigation required of new development for general improvements on an equitable basis, based on the projected cumulative impact for a 20 year horizon.

Implementation Measure III-5A-1: Establish a program of proportional road improvement mitigation fees for State highway general improvement projects.

Implementation Measure III-5A-2 : If a developer funds a general improvement beyond the appropriate proportional share, the County may permit execution of an agreement with the Board of Supervisors for reimbursement to the developer from future development.

5.0 County Roads

The County road system has 13 major collectors and over 100 minor collectors. County roads serve varied purposes and carry different types of traffic.

Regional county roads are assessed in the Regional Transportation Plan (RTP) prepared by the Calaveras County Local Transportation Commission (LTC). Both the General Plan and Regional Transportation Plan provide a blueprint for county road improvement scheduling. The Local Transportation Commission may also add to the projected schedule of road improvements when found to be in the public interest.

The Regional Transportation Plan utilizes travel forecasting, general terrain, and Average Daily Traffic thresholds to determine level of service. However, for the purpose of calculating level of service on county roads, the County includes the reduced average speed due to specific terrain and design of roads based on field investigation. Therefore the more detailed County assessment may result in lower levels of service for county roads than the RTP determined level of service. The road improvement mitigation fees for county roads will be based on the County's more detailed analysis. A list of the most recently determined levels of service for County roads is attached in the Circulation Element Appendix.

5.1 Development Impacts

When a proposed project needing discretionary approval is considered by the Planning Commission, or when a commercial, industrial or multi-family residential building permit is sought, a project's proportional impact on county roads is assessed, and road improvement requirements for the project are determined.

The traffic volume generated by a proposed project must be considered in relation to maintaining the existing level of service, as determined by the County, on an affected county road as it passes the project site or intersects with the project access road. The ability to access a development project is a benefit to the project proponent. The cost of maintaining or improving the existing level of service is the responsibility of the proponent.

Project Specific Improvements

Project specific improvements may include construction of a left turn pocket, acceleration/deceleration lane, encroachment improvements, or installation of traffic control signals.

When a development project is evaluated for its effects on county roads, the location of project-specific improvements is examined in relation to identified general improvements and the cumulative effect of development in the project vicinity. If a general improvement to the county road would or could incorporate the required project-specific improvements, the County may consider contributing to the cost of the improvement, if it is a high priority improvement in the Regional Transportation Plan and serves a general public purpose.

General Improvements

General improvements may include road widening, improving sight distance, maintaining level of service, or complete realignment. General improvements benefit the public at large in addition to a particular project, so the cost is shared among those benefitting. Improving a road to appropriate standards requires consideration of both attaining a required level of service and meeting engineering requirements for the appropriate functional service classifications.

Financing County Road Improvements

Road improvement financing is available from a number of sources. Table III-4 shows sources of annual road revenues. County road improvement projects are prioritized and scheduled through the LTC and the County.

TABLE III-4 SOURCES OF ROAD IMPROVEMENT FUNDS					
Revenue Fund	91/92 Actual	92/93 Actual	93/94 Actual	94/95 Estimated	95/96 Estimated
Property taxes	\$422,918	\$310,842	\$310,041	\$343,922	\$343,922
Licenses and permits	69,854	44,223	36,052	35,500	35,500
Court fines	49,759	37,537	29,535	30,000	30,000
Interest	96,799	71,863	51,890	52,000	52,000
State sources	2,411,632	2,403,836	2,455,178	2,630,456	2,730,576
Local sources	272,564	343,413	389,059	585,284	374,410
Subtotal	3,343,526	3,211,714	3,271,755	3,677,162	3,566,408
Federal non-restricted	826,238	189,331	502,849	189,130	189,130
Federal restricted	7,685	342,115	255,304	1,488,359	1,234,883
Total	\$4,177,449	\$3,743,160	\$4,029,909	\$5,354,359	\$4,990,421

GENERAL PLAN RECOMMENDATIONS

Goal III-6 : Maintain and improve existing levels of service of county roads.

Policy III-6A: Coordinate road improvement requirements between the County, LTC, and development.

Implementation Measure III-6A-1: Enforce the design standards of the Road Ordinance, Chapter 12.02 of County Code.

Implementation Measure III-6A-2: Include measures to maintain or improve levels of service on county roads in connection with subdivision approvals, and commercial, multi-family residential, and industrial design and building permits.

Implementation Measure III-6A-3: Amend the Regional Transportation Plan to include county road improvements identified in the General Plan.

Goal III-7: Provide for financing of project-specific and general improvements to county roads.

Policy III-7A: Develop road improvement mitigation fees on an equitable, proportional basis.

Implementation Measure III-7A-1: Regularly review existing county roads, including the cost of general improvements, existing level of service, traffic volume and remaining capacity.

Implementation Measure III-7A-2: Assess development its proportional shares of county road improvement mitigation based on the development's proportional impact to and use of the following types of road usage:

- Intercounty traffic
- Intracounty traffic
- Destination traffic
- Local traffic

Implementation Measure III-7A-3: Adopt a road improvement mitigation fee Ordinance to help finance general improvements to County roads.

Policy III-7B: Review proposed development projects to determine whether they warrant project-specific improvements to county roads to maintain level of service at the subject property.

Implementation Measure III-7B-1: Require project-specific improvements, including but not limited to, left turn pockets, escape lanes, acceleration/deceleration lanes, improved encroachments, and traffic control devices, the costs of which are to be borne by the project proponent and which may exceed beyond the project's frontage in order to facilitate the necessary improvement.

Policy III-7C: Ensure monies are collected to upgrade county roads to the standards of their respective functional service classifications.

Implementation Measure III-7C-1: Require developers seeking discretionary approval of a project or construction of new multifamily residential, commercial, or industrial development on parcels served by regional county roads at level of service A, B or C to contribute as needed to the road improvement mitigation fund for both the road region and the road serving the subject property.

Implementation Measure III-7C-2: When a project is proposed to be located in a road region which includes county roads at level of service D, E or F on which traffic generated by the project will logically travel, allow the developer the following road improvement options:

- Defer project consideration until the county road is upgraded to level of service A, B or C;
- Construct at developer expense all onsite and offsite improvements necessary to upgrade all county roads impacted by the project to service level A, B or C;
- Form an improvement district with other property owners in the area to share the cost of upgrading impacted county roads to service level A, B or C.

Implementation Measure III-7C-3: If a developer funds the cost of upgrading a county road to service level A, B or C, permit execution of an agreement to reimburse the developer for expenses beyond the required proportional share or improvements; reimbursement may come from fees collected from future developers or future building permits issued in the road region.

6.0 Private Roads

Private roads in the County range from fully paved sections meeting County road design standards to tire ruts through a field. Many private roads which were adequate at the time of original construction are now inadequate due to lack of maintenance combined with increased use. Others which were constructed adequately for the original purposes of the road, are now overburdened by increased use.

Standards for private road improvements are established by the County in the Road Ordinance. Many existing private roads have no means of maintenance, unless an agreement is made among all road users.

When development is proposed on a private road, the County becomes involved to ensure that the private road provides adequate access to the proposed project. Development on a private road may also impact the public road to which it connects. The level of service on the public road must not be degraded as a result of private road development. The proponent is responsible for the full cost of the required private road improvement that is needed to accommodate the proposed project.

GENERAL PLAN RECOMMENDATIONS

Goal III-8: Ensure that all new parcels have adequate legal access.

Policy III-8A: Approve no subdivision or parcel map unless there is legal access to the subject property.

Implementation Measure III-8A-1: Enforce the provisions of the County Road Ordinance, Chapter 12.02 of County Code, for all new divisions of land.

Implementation Measure III-8A-2: Require that private roads are developed to the standards of the County Road Ordinance, Chapter 12.02 of County Code.

Goal III-9: Provide for future maintenance of private roads.

Implementation Measure III-9-1: Require all subdivisions proposing to use private roads as legal access to form mandatory road maintenance entities which provide for assessments and enforceable collections.

7.0 Road Maintenance

County and state maintained roads receive funding for general road maintenance. Non-county maintained public roads and private roads do not qualify for public funding. There are a number of means by which the non-publicly maintained roads can accumulate funds for maintenance:

- **Informal associations**, in which property owners provide road maintenance on a purely voluntary basis, when they feel it necessary.
- **Homeowner associations**, generally formed with recordation of a subdivision map and deed restrictions (CC&R's); many newer associations are likely to include mandatory provisions for the collection of annual assessments.
- **County Service Areas (CSA's)** are County administered special districts formed and operated by the Board of Supervisors under the County Service Area Law (Government Code section 25210.1 *et seq.*); when CSA's are established for road maintenance purposes, assessments are collected in the same manner as property taxes.
- **Community Services Districts (CSD's)** are special districts established pursuant to the Community Services District Law (Government Code section 61000 *et seq.*), and are governed by an independent board of directors elected by registered voters in the District; if a CSD is established for road improvement and maintenance, assessments are collected in the same manner as property taxes.

- **Community Facilities Districts (CFD's)** are special districts established and operated by the Board of Supervisors under the Mello-Roos Community Facilities District Act of 1982 (Government Code section 53311 *et seq.*).

The following table lists the CSA's, CSD's, and CFD's in the County.

TABLE III-2 ROAD MAINTENANCE AGENCIES	
County Service Areas	
#1 Rancho Calaveras	#8 Spring Hills
#2 Bar XX	#10 El Rancho Loma Serena
#4 Diamond XX	#12 Golden Hills
#5 Campo Seco Estates	
Community Services Districts	
Appaloosa Road	Mountain Ranch Subdivision
Circle XX	Saddle Creek
Copper Cove Rocky Road	Three Cent Flat
Lynn Park Acres	Wallace
Community Facilities District	
#1 Hathaway Pines	

Although the Board of Supervisors disfavor the creation of new County Service Areas due to the significant County staff time spent in their administration and the frequent lack of consensus among property owners within CSA's as to road maintenance priorities, the Board recognizes that there are circumstances under which the formation of a new County Service Area may be appropriate.

Any district formation must follow action by the Local Agency Formation Commission (LAFCO).

GENERAL PLAN RECOMMENDATIONS

Goal III-10: Provide for the formation of special districts for road maintenance and other infrastructure improvements.

Policy III-10A: Consider available forms of mandatory road maintenance financing.

Implementation Measure III-10A-1: Establish criteria for determining when one method of road maintenance financing is to be preferred over others.

Policy III-10B: Encourage the formation of Community Services Districts in areas where there are or will be an adequate number of registered voters to properly operate the district.

Policy III-10C: Consider the formation of County Service Areas or Community Facilities Districts for areas with too few registered voters to properly operate the district, or where the proposed area consists of urban scale development.

Implementation Measure III-10C-1: Allow formation of new County Service Areas only when all of the following criteria are met:

- The project consists of non-residential or non-resource development or consists of residential development with approved density of at least three dwelling units per acre;
- The infrastructure for services to be incorporated in the CSA is constructed to county maintained or utility-required standards;
- The minimum annual maintenance assessment equals the estimated costs of ongoing facility or infrastructure maintenance and contains an automatic escalation clause to cover estimated inflation rates for services to be provided;
- The proposal is approved by the Local Agency Formation Commission (LAFCO);
- The project proponent demonstrates that financing for initial facilities and infrastructure construction has been approved by the entity providing funds.

8.0 Other Road Issues

8.1 Road Encroachments

A road encroachment is the intersection between a public road and a private road or driveway. On state highways, encroachments are regulated by Caltrans. On county roads, encroachments are administered by the Department of Public Works based on standards in the County Road Ordinance. On private roads, unless regulations are established by a special district, there are no standards for encroachments.

Failure to maintain or properly construct any regularly used encroachment may result in damage to the road surface caused by storm water drainage or breakdown of the pavement edge. Substandard encroachments may also cause problems for snow removal operations, and may pose safety problems.

8.2 Snow Removal

A substantial portion of the County lies above the 3000 foot elevation, which is considered the "normal" snow line. Caltrans provides clearing operations on the state highways. On county roads, responsibility for snow removal normally rests with the Department of Public Works. Because of the volume of snow and high costs of removal, the County does not remove snow from public roads above the 5000 foot elevation, with the exception of a few roads in Big Trees Village. The County also does not remove snow from dirt or gravel roads.

8.3 Mining and Timber Production

Two major resource industries in the County are mining and timber production. Because those industries must operate where mining and timber resources are located, operations tend to be located on lands in isolated areas with substandard public or private roads.

The Mining Use Permit approval process for mineral extraction operations provides an opportunity to examine project-specific impacts to roads. Methods of offsetting potential road impacts include assessment of weight fees on haul vehicles using a per ton/mile formula, as well as requiring improvements to encroachments or to substandard roads. The periodic nature of mineral extraction projects and their actual road impacts need to be considered so that the burden of road mitigation placed on mining projects does not exceed actual impacts.

Timber production in Calaveras County takes place primarily on national forest lands or on private lands within the Timber Production Zone. Timber producers and harvesters pay special use taxes based on actual production. The yield tax on private timber lands accrues to the County General Fund, whereas the timber tax from harvesting timber on National Forest lands is divided equally between schools and the County Road Fund.

GENERAL PLAN RECOMMENDATIONS

Goal III-11: Assure adequate development standards for encroachments on public and private roads.

Policy III-11A: Require that encroachments be completed before use or occupancy of any development encroaching onto public roads.

Implementation Measure III-11A-1: Enforce provisions of the County Road Ordinance, Chapters 12.02 and 12.08 of County Code and Zoning Code, Title 17 of County Code, relating to encroachments on public roads and roads within special districts.

Goal III-12: Provide for adequate snow removal operations.

Policy III-12A: Review development proposed above the 3000 foot elevation for adequate room onsite to store snow removed from roads and parking areas.

Implementation Measure III-12A-1: Enforce Zoning Code provisions requiring areas for snow storage above 3000 feet.

Implementation Measure III-12A-2: Enforce Zoning Code provisions governing off-street parking so that vehicles do not interfere with snow removal operations.

Goal III-13: Provide for road maintenance agreements by mineral extraction operations.

Policy III-13A: Determine weight and volume impacts on County roads from mining vehicle usage.

Implementation Measure III-13A-1: Prepare a standard agreement to mitigate mining impacts on roads.

Part 2. TRANSPORTATION SYSTEM

In addition to roads, the transportation system includes scenic highways, public transit, airports, railways, pipelines, and bicycle, pedestrian and equestrian routes.

1.0 Scenic Highways

1.1 State Scenic Highways

State Route 4, the Ebbetts Pass Highway, from Arnold Byway in the Arnold Community Plan Area to U. S. 395/Highway 89 in Alpine County, is an official State Scenic Highway. California designates official scenic highways in all areas of the State, recognizable by the familiar blue sign with the California Poppy on it. Normally, the state designation is generated by the local jurisdiction implementing planning actions to protect and enhance the scenic appearance of the corridor.

State law permits and encourages local management of land use, including density and intensity of development, design review and regulation of offsite outdoor advertising (billboards) in state scenic highway corridors.

1.2 Locally Designated Scenic Highways

A number of state highway segments in Calaveras County are County designated scenic highways. While not currently recognized as such by the State, inclusion in the General Plan is an initial step toward state recognition.

Highway 4. Between the Stanislaus County line and Angels Camp, Highway 4 offers a number of long stretches with open vistas. Most significant is the vista of the San Joaquin Valley which may be observed by west bound traffic just west of Diamond XX near Copperopolis. East bound traffic at this location has a vista of the Salt Spring Valley and Copperopolis townsite.

Between Angels Camp and Murphys, there are views of the upper foothills nestled against a back drop of the high Sierra. Complimenting the vistas are nearby meadows and hills.

Highway 49. Three segments of the highway have notable scenic qualities. The segment between Mokelumne Hill and San Andreas provides a view of Chili Gulch. The segment between San Andreas and Angels Camp offers a vista that is framed by the Hog Back Range and the upper foothills. Between Angels Camp and New Melones Reservoir, the view is primarily of the Reservoir.

GENERAL PLAN RECOMMENDATIONS

Goal III-14: Preserve and enhance the natural and historic character of scenic highway corridors in Calaveras County.

Policy III-14A: Support identified scenic highway segments in the County on state highways for inclusion in the State Scenic Highway program.

Implementation Measure III-14A-1: Request that Caltrans conduct scenic highway corridor studies of designated areas on Highways 4 and 49

2.0 Public Transit

Public transit in Calaveras County is currently provided by private operators for intracounty and intercounty service. The Central Sierra Stagecoach, Inc. provides exclusively intracounty service. Calaveras Transit Company provides intercounty service combined with intracounty stops. Other means of mass transit include car and van pools.

Central Sierra Stagecoach, Inc. operates passenger coaches primarily used to transport the general public and senior citizens to and from San Andreas or Angels Camp from outlying rural areas. Fares are supplemented by state and local transportation funds.

2.1 Car and Van Pools

The majority of Calaveras County's population resides in the Ebbetts Pass and Valley Springs areas. The major portion of the County's employment is centered in San Andreas and Angels Camp. Many commuters within the County have formed car pools. There are also van pools in the County, generally serving commuters living in Calaveras County and working in Stockton, Lodi, or Sacramento.

There is a need for "Park and Ride" lots to be located in areas where commuters gather for car and van pools. Caltrans has identified locations for Park and Ride facilities in its "Report on the Status of Park and Ride Facilities" (Stockton: Caltrans District 10, September 1986).

GENERAL PLAN RECOMMENDATIONS

Goal III-15: Develop and maintain affordable public and private transportation, as needed, especially for disabled residents and others with specialized transportation needs.

Policy III-15A: Review and coordinate transit service in the County to reduce duplicate services and avoid conflict among transit providers.

Implementation Measure III-15A-1: Monitor the County Transportation System for service and cost effectiveness, and adjust routes and schedules accordingly.

Policy III-15B: Encourage the use of public transit, as well as ride sharing, car pools and van pools.

Implementation Measure III-15B-1: Improve public awareness of transit systems and services with media and other promotion.

Implementation Measure III-15B-2: Apply for mass transit grants to expand transit services and offset the costs of public promotion.

Implementation Measure III-15B-3: Investigate through Regional Transportation Plan review the establishment of formal ride share programs.

Implementation Measure III-15B-4: Designate appropriate "Park and Ride" facilities.

3.0 Airports

3.1 Private Airfields

There are a number of individually owned and operated airstrips in the County. They generally serve a large ranch or parcel and are used by the individual owner and guests. The individual airstrip generally is used on a limited basis.

Private airstrips may also be proposed as part of a planned subdivision for use by the property owners. Because subdivision airstrips have the potential for much greater use, compatibility with nearby land uses becomes a more significant issue.

3.2 Public Airports

There is presently one public airport in Calaveras County located between Angels Camp and San Andreas on Highway 49. Calaveras County/Maury Rasmussen Field was dedicated in 1982, and is financially self supporting. The airport has an initial runway length of 3600 feet, and will accommodate the single engine and small twin engine aircraft expected to use the facility on a routine basis. Light executive jet aircraft can be accommodated on the present runway on a limited basis.

There are plans to expand the runway to 4200 feet, which would allow larger twin engine and medium sized jet aircraft to utilize the airport.

There are hangar and tie-down facilities for approximately 100 aircraft at the field, with room to accommodate approximately 200 aircraft in the future.

An Airport Land Use Plan was adopted in 1992, and incorporated into the General Plan as the Airport Special Plan. The Plan addresses issues regarding safety to persons on the ground, safety to occupants in the aircraft, noise, and land use. For specific policies relating to these issues, refer to the Land Use Element, the Airport Special Plan, the Safety Element, and Noise Element.

GENERAL PLAN RECOMMENDATIONS

Goal III-16: Protect residents from significant noise and hazards from new private airports.

Policy III-16A: Permit airports when safe and compatible with neighboring land uses.

Implementation Measure III-16A-1: Limit individual private airports to rural areas of the County.

Implementation Measure III-16A-2: Limit subdivision airports to projects which are designed from initiation to include a private airport.

Policy III-16B: Require conditional use permits for all airports.

Implementation Measure III-16B-1: Require that proposed individual private airports meet the following criteria:

- Not within an existing residential subdivision; and
- Compatible with adjoining existing and potential land uses; and
- Compliance with the Airport Special Plan; and
- Compliance with County noise and safety policies; and
- Compliance with the standards of the Airport Overflight and Noise Impact Area Zone and Airport Height Limitation Zone.

Implementation Measure III-16B-2: Require that proposed subdivision airports provide adequate building sites and buffers meeting the requirements of the Airport Approach Zone and Airport Height Limitation Zone, and are compatible with nearby land uses.

Implementation Measure III-16B-3: Utilize the provisions of the Airport Approach Zone and Airport Height Limitation Zone in the County Zoning Code.

Goal III-17: Enhance, maintain and improve the Calaveras County Airport.

Policy III-17A: Prevent new land uses and zoning surrounding the County Airport from creating future land use conflicts.

Implementation Measure III-17A-1: Implement land use, zoning and development policies of the Airport Special Plan.

4.0 Railroads

Railroad activity in Calaveras County is limited to future operations on the San Andreas branch of the Southern Pacific Railroad, the Kentucky House Branch. This line runs from Lodi in San Joaquin County to San Andreas, through the Prime Industrial Corridor as identified in the Land Use Element. Before closure of the Calaveras Cement Plant in San Andreas (1984), the freight train operated three times per week, round trip, from Lodi to the cement facility.

Southern Pacific Railroad Company filed and received approval of a request for abandonment of the branch with the Interstate Commerce Commission (ICC). While the approval was granted, Southern Pacific has not yet consummated the abandonment, and there is still the potential to preserve the corridor. The future of any railroad operations in Calaveras County are currently unknown, but if resumed in the near future, are likely to remain as freight transportation.

Refer to the Noise Element for noise policies relating to this line.

GENERAL PLAN RECOMMENDATIONS

Goal III-18 : Retain the Kentucky House Branch Line as a rail transportation corridor.

Policy III-18A: Encourage the maintenance of the Kentucky House Branch Line as a viable means of freight or passenger transportation.

Implementation Measure III-18A-1: Review any future development near the rail line for appropriate setbacks and buffers.

Implementation Measure III-18A-2 Review the existing land uses and parcel sizes adjacent to the railroad right-of-way and establish appropriate setback requirements and building insulation standards.

5.0 Pipelines

Pipelines constitute an essential means of transporting certain commodities for long distances. Only a few products and materials are transported by pipeline in Calaveras County.

Products	Owner
Irrigation and drinking water	Various districts and City of Angels
Natural Gas	Pacific Gas and Electric
Sewage	Various Districts <i>and City of Angels</i>
Water for power generation	P G & E, Northern California Power Authority, East Bay MUD, and other districts

A large part of the County's domestic water resources are transported via pipelines.

The natural gas pipeline in Calaveras County was originally installed to serve the Cement Plant. Since that time, branch lines have been constructed to serve San Andreas and a few smaller communities near the pipeline.

Sewage disposal by pipeline is limited to the densely populated areas of the County.

Water for power generation is transported in flumes, tunnels and high pressure steel penstocks to power houses located on major rivers or streams. Most of the power generated is transported by high voltage power line to urbanized areas outside of the County.

GENERAL PLAN RECOMMENDATIONS

Goal III-19: Promote the continued and expanded use of pipelines for the transport of suitable products and materials.

Policy III-19A: Permit pipelines in public rights of way under established conditions.

Implementation Measure III-19A-1: Review encroachment permit procedures and designate specific portions of rights of way for the installation of pipelines.

6.0 Bicycle, Pedestrian and Equestrian Travel

Calaveras County adopted a "Bike Plan" in September 1980. The Plan includes goals, policies and implementation measures which specifically address bicycle travel as an integral part of the transportation system.

The local Bike Plan includes a portion of the state-wide network as well as complimentary local routes. Portions of the local system of bicycle-pedestrian pathways (generally widened roadway shoulders) have been constructed. A portion of the state-wide system along State Highway 49 has been developed with widened shoulders.

The special needs of students, particularly in the Arnold, Murphys and San Andreas areas are addressed in the Bike Plan.

Equestrian travel provides recreation to many residents and visitors to the County. Given the predominant rural character of the County, most equestrian travel occurs on private lands.

Trail enthusiasts are trying to develop a permanent trail access along the Mokelumne River in Calaveras County. The proposed Mokelumne Coast to Crest Trail, has been included in the Open Space Element.

GENERAL PLAN RECOMMENDATIONS

Goal III-20: Provide safe areas for bicycles, pedestrians and equestrians on existing and proposed roads.

Policy III-20A: Design improvements of transportation facilities with primary consideration to providing for the safety of school children and local residents on existing and proposed facilities.

Implementation Measure III-20A-1: Utilize all available federal, state and local funding for construction and maintenance of non-motorized transportation facilities.

Implementation Measure III-20A-2: Implement the priority projects in the 1980 Calaveras County Bike Plan as funding allows.

CONSERVATION ELEMENT

1.0 Introduction

The Conservation Element addresses the identification, conservation, development and utilization of the County's natural resources. The Element promotes proper management of both finite and renewable resources in the following categories: soils, agriculture, forests, minerals, and waters resources. Important uses of these resources are summarized, and an evaluation of the issues surrounding the protection of the resources is discussed. The protection of Calaveras County's fisheries and wildlife are discussed in the Open Space Element.

1.1 Legal Authority

Section 65302(d) of the California Government Code requires the County to adopt a Conservation Element for the purposes of conservation, development, and utilization of natural resources including waters, harbors, fisheries, wildlife, minerals and other natural resources. The State advises that the Element should promote the "protection, maintenance, and use of natural resources, prevent the wasteful exploitation, destruction and neglect of natural resources, and recognize that natural resources must be maintained for their ecological value as well as for their direct benefits to people".

1.2 Relationship to Other General Plan Elements

The Conservation Element provides policies to protect natural resources and their uses. Many of the issues covered in this Element directly overlap those required in the Open Space, Land Use, and Safety Elements. The Conservation and Open Space Elements are closely related. While the Conservation Element discusses various uses and preservation of natural resources, the Open Space Element addresses ecological resource areas; cultural, historic, and scenic resources; and recreation areas. Both elements are integrated with the Plan's policies regarding Land Use and Safety.

2.0 Soils

Soil Types map, Page IV-2, shows nine soil groups for Calaveras County. This section briefly describes the characteristics of the soil groups according to their value as agricultural lands. A more detailed explanation of sources and terms, erosion hazard, ability to support septic tank leach fields, shrink-swell characteristics, and corrosiveness is contained in the Conservation Element Appendix.

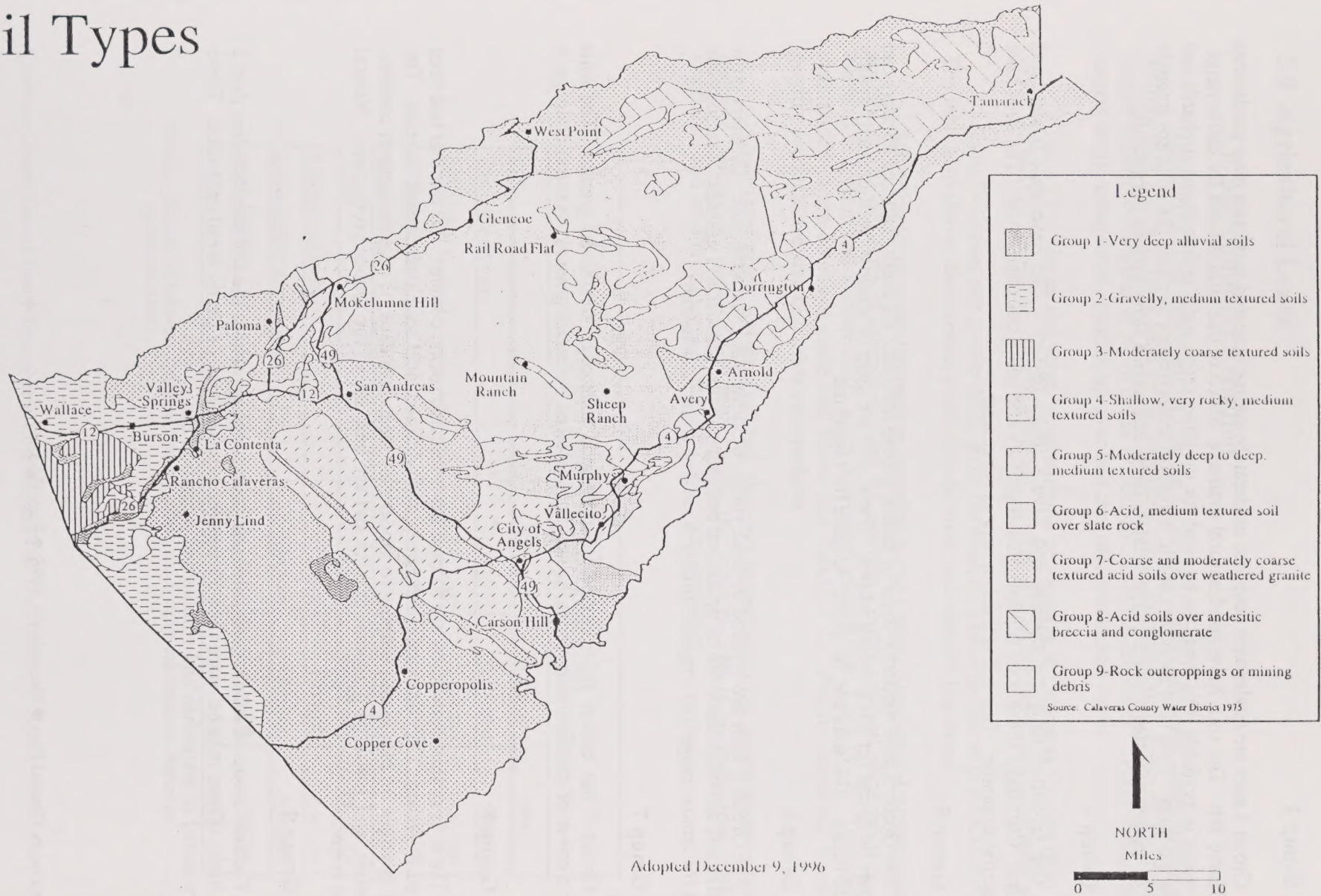
Group 1

The Group 1 soils are areas dominated by very deep alluvial soils with good to moderately good drainage. These soils are generally fertile and suitable for cultivation.

Group 2

Group 2 denotes areas dominated by shallow, well-drained gravelly soils with finer subsoils. Typical uses are rangeland and orchards.

Soil Types



Group 3

Group 3 soils are moderately deep and moderately coarse textured materials over sandstones and volcanic ash. The soils have good natural drainage. Much of this land is used for cattle range. Where water is available, this land can be used for irrigated crops such as deciduous orchards and irrigated pastures. This land requires careful irrigation management because the soils are strongly sloping to moderately steep, are only moderately deep, and have a slow surface permeability.

Group 4

The Group 4 soils are shallow and have a rocky texture. The base rock is slate and serpentine. Currently, these soils support annual grasses and some oaks and brush. The soils have good natural drainage. This soil is used mostly as rangeland.

Group 5

The Group 5 soils support a cover of annual grasses and oaks, although scattered conifers can sometimes be found on north-facing slopes. These soils are deep to shallow, well-drained, slightly acid, and rocky. The soils are, however, suitable for rangeland.

Group 6

The Group 6 soils are typified by acid, rocky, or stony soil over slate rock. Conifers grow well in this soil, although there will be occasional pockets of oaks, shrubs, and grasses. The soils can be used for annual range and irrigated orchards (where water is available).

Group 7

Group 7 has coarse to moderately coarse, acid soils over weathered granite. The soils support a cover of conifers, oak, cedar, brush, and scattered perennial grasses. Natural drainage is good.

Group 8

The soils of this association are formed from volcanic rocks, cobbles, and ash that had been cemented together. They are moderately deep, well-drained, acid soils that contain cobbles. The soils are generally on moderately sloping to moderately steep lava caps. The soils support conifers, oaks, brush, and scattered perennial grasses and are best suited for timber production. Natural drainage is good.

Group 9

The final group of soils are actually rocky outcroppings, where the soil mantle is less than 2 inches thick. There may be more than 50 percent exposed rock or partly weathered rock. These areas are suited to watershed and wildlife and recreation use.

3.0 Agricultural Lands

3.1 Agricultural Production

Agriculture is an important part of the Calaveras County economy. Agricultural products include fruit and nut crops, field crops, vegetable crops, nursery crops, livestock and poultry, and timber (which is discussed in more detail in Section 3.0 of this element). Timber production is the largest single component, making up over half the total production value.

Table IV-1 shows the value of agricultural production in Calaveras County from 1990 to 1993. Table IV-2 shows the value of livestock, poultry, and apiary (bees) and associated products.

Table IV-3 goes into greater detail about the exact type of crops found in the County in 1993. The table also shows the acreage, overall production, and value of the crops.

According to the yearly information compiled by the County Agriculture Commissioner, there are almost 420,000 acres of agricultural land in Calaveras County. Almost all of this area, 412,000 acres, is rangeland and another 2,000 acres is irrigated pasture (see Table IV-3). The leading farm commodity in the county is cattle and calves (see Table IV-2). Poultry farms and livestock and poultry products are also important commodities.

Aside from range and pasture land, the next largest area (731 acres) under cultivation is walnuts. However, compared to other crops, the value per ton is relatively low. Other fruit, vegetable, and field crops use a little over 1,300 acres combined.

TABLE IV-1 VALUE OF AGRICULTURAL PRODUCTION Calaveras County, 1990-1992			
Item	1992	1991	1990
Fruit and Nut Crops	\$1,344,700	\$1,241,900	\$989,000
Field Crops	4,415,800	4,404,200	4,406,800
Vegetable Crops	191,600	167,000	130,000
Nursery Crops	470,700	458,000	442,000
Timber	15,621,000	13,900,000	30,320,000
Livestock and Poultry	7,125,200	8,935,300	8,467,400
Livestock and Poultry Products	1,342,000	1,935,400	2,602,600
Apiary Products	532,700	536,300	326,700
TOTAL	\$31,043,700	\$31,578,100	\$47,684,500

Source: County of Calaveras Department of Agriculture and Weights and Measures, *Report of Agriculture, 1992*.

TABLE IV-2
LIVESTOCK PRODUCTION AND VALUE
Calaveras County 1993

Livestock and Poultry	Number of Head	Total Live Weight	Value
Cattle and Calves	12,700	72,200	\$5,3683,600
Sheep and Lambs	900	950	61,800
Swine	1,500	1,950	94,800
Poultry (includes game birds, squab, rabbits, etc.)	—	—	1,597,600
Other Livestock (goats, emus, llamas, etc.)	—	—	160,000
Livestock Products (milk, eggs, wool, mohair, etc.)	—	—	2,008,000
Bee Products	—	—	532,700
TOTAL	14,050	66,840	\$8,999,900

Source: County of Calaveras Department of Agriculture and Weights and Measures. *Report of Agriculture*, 1993.

TABLE IV-3
CROP ACREAGE, PRODUCTION, AND VALUE
Calaveras County, 1993

Crop	Bearing Acres	Production	Value
Fruit and Nut Crops			
Almonds	31	18 tons	\$5,400
Walnuts	731	290 tons	406,000
Apples	140	250 tons	75,000
Wine Grapes	260	625 tons	362,500
Olives	250	500 tons	190,000
Other Fruit Crops (cherries, berries, pears, peaches, etc.)	—	—	350,000
Field Crops			
Grain Hay	300	450 tons	36,000
Legume Hay	30	80 tons	7,200
Native Hay	150	75 tons	3,400
Irrigated Pasture	2,000	—	220,000
Rangeland	412,000	—	4,120,000
Other Field Crops (wheat, safflower, beans, etc.)	—	—	25,000

Vegetable Crops			
Vegetable Crops (tomatoes, corn, peepers, melons, asparagus, etc.)	—	—	193,000
Nursery Crops			
Christmas Trees	—	18,000 trees	360,000
Nursery Products	—	—	225,000
Timber			
Timber Production	—	82,429 mbf*	35,110,600
TOTAL	415.982	NA	41,689,101.00

Notes: * mbf = million board feet.

Source: County of Calaveras Department of Agriculture and Weights and Measures. *Report of Agriculture*, 1993.

3.2 Williamson Act Lands

The California Land Conservation Act, commonly known as the Williamson Act, was enacted by the state legislature in 1965 to encourage the preservation of agricultural lands. Under the Act, property owners may enter into contracts with the County to keep their lands in agricultural production for a minimum of 10 years, in exchange for property tax adjustments. Lands covered by Williamson Act contracts are assessed based on their agricultural value instead of their potential market value under non-agricultural uses.

There are over 125,000 acres of land in Calaveras County in agricultural preserves. The largest mass of these lands are in the southwestern portion of the county near the Stanislaus County border. The remaining sites tend to be scattered throughout the middle of the county. There are only a few agricultural preserve areas in the northwest portion of the county, where the soil tends to be very rocky. Nearly 90 parcels have applied for non-renewal, which will remove almost 7,000 acres from the agricultural preserves by the year 2002.

Important Farmlands

The California Department of Conservation supplements the Soil Conservation Service soil survey with its Important Farmland Mapping and Monitoring Program. The program identifies five categories: Prime Farmlands, Farmlands of Statewide Importance, Unique Farmlands, Farmlands of Local Importance, and Grazing Lands.

Prime farmland has the best combination of physical and chemical characteristics for crop production. *Farmland of statewide importance* is not quite as good as prime soil, though still has supported crop production for at least the three preceding years. *Unique* farmland ranks below prime and statewide important farmlands, though is still capable of producing high economic value crops such as avocados and grapes. Finally, *farmland of local importance* ranks below the other three, yet may be important to the local economy due to its productivity (Department of Conservation, *Important Farmland Categories*).

Although there have been no prime agricultural lands identified in Calaveras County, many lands are capable of supporting agriculture. In general, lands with less than 30 percent slopes and soil depths of two or more feet are suited for agricultural use.

Potential Agricultural Areas

As shown on High Capability Agriculture Lands map, Page IV-7, there are some areas of the county that are currently not farmed, but that are arable and may be suitable for agricultural production. The largest parcels are toward the center of the county, in fairly remote areas. The existing vegetation on this central portion is mostly conifers with some hardwoods and grass lands. Timber production and some rangeland may be suitable for this area. The arable areas nearer to the San Joaquin County border are mostly grass lands and shrubs. Again, rangeland may be suitable in this area. If water is available, some fruit or field crops may also be possible.

GENERAL PLAN RECOMMENDATIONS

Goal IV-1: Preserve and encourage the use of land for agriculture purposes.

Policy IV-1A: Allow resource production lands to remain available for agriculture and rural use.

Policy IV-1B: Encourage Williamson Act contracts on lands outside of Community Centers, Residential Centers, Community, Special and Specific Plan Areas, and Mixed Use/Master Project Areas.

Implementation Measure IV-1B-1: Cooperate with the County Agriculture Commissioner when considering land use for lands within Williamson Act contracts.

Implementation Measure IV-1B-2: Require Community and Special Plans adopted after January 1, 1996, to address agriculture resources, and allow densities on resource lands within those Plan areas to reflect area preferences.

Goal IV-2: Protect legally established agriculture from encroachment by incompatible land uses.

Policy IV-2A: Review development proposals for possible encroachment upon legally established agriculture.

Implementation Measure IV-2A-1: Enforce "right to farm" provisions of the County Zoning Code.

4.0 Forest Resources

Forests are a significant natural and economic resource for Calaveras County. The forest lands provide for open space, recreation, and natural habitats, which is discussed in the Open Space element. In addition, these lands are utilized for timber production.

4.1 Timber Production

Timber consists of trees of any species, whether planted or naturally occurring, which are maintained for eventual harvest. Timber includes Christmas trees, but does not include nursery stock. Areas receiving the Timber Production Lands designation are identified as highly capable of supporting timber growth and harvesting. The soil information developed by the California Department of Forestry (CDF) Cooperative Soil Vegetation Survey identifies soil classifications capable of supporting timber. Lands containing soils in the Arvanitis and Palley Site classes 3 through 7 (medium to very high) are most capable of timber production. These lands were included as part of the lands shown on the High Capability Timberlands Map, Page IV-10.

Most timber production occurs in the eastern section of the county on or near the Stanislaus National Forest lands. Lands in Calaveras County are estimated as capable of producing about 60 million board feet of lumber per year with some 20 million board feet coming from the Stanislaus National Forest.

The Stanislaus National Forest administers 75,072 acres within the county, which comprises approximately eleven percent of the county. As of 1986, American Forest Products Company controlled an estimated 67,000 acres in the eastern portion of the county. Fiberboard Corporation (a subsidiary of Louisiana Pacific), Snider Lumber Products Company, and Yuba River Lumber (a subsidiary of Bohemia Lumber Company) each controlled minor acreage (less than 1,000 acres each) within the county's boundaries.

1992 figures from the County Agriculture Commissioner indicate that 75,893 or 12 percent of the total land area is held in Timber Production Zone (TPZ) pursuant to the Forest Taxation Reform Act of 1976. See High Capability Timberlands Map, Page IV-10.

Timber production is allowed outside of those areas identified in the General Plan as Timber Production Lands. It is not the intent of the Plan to restrict timber practices to lands receiving the timber production designation.

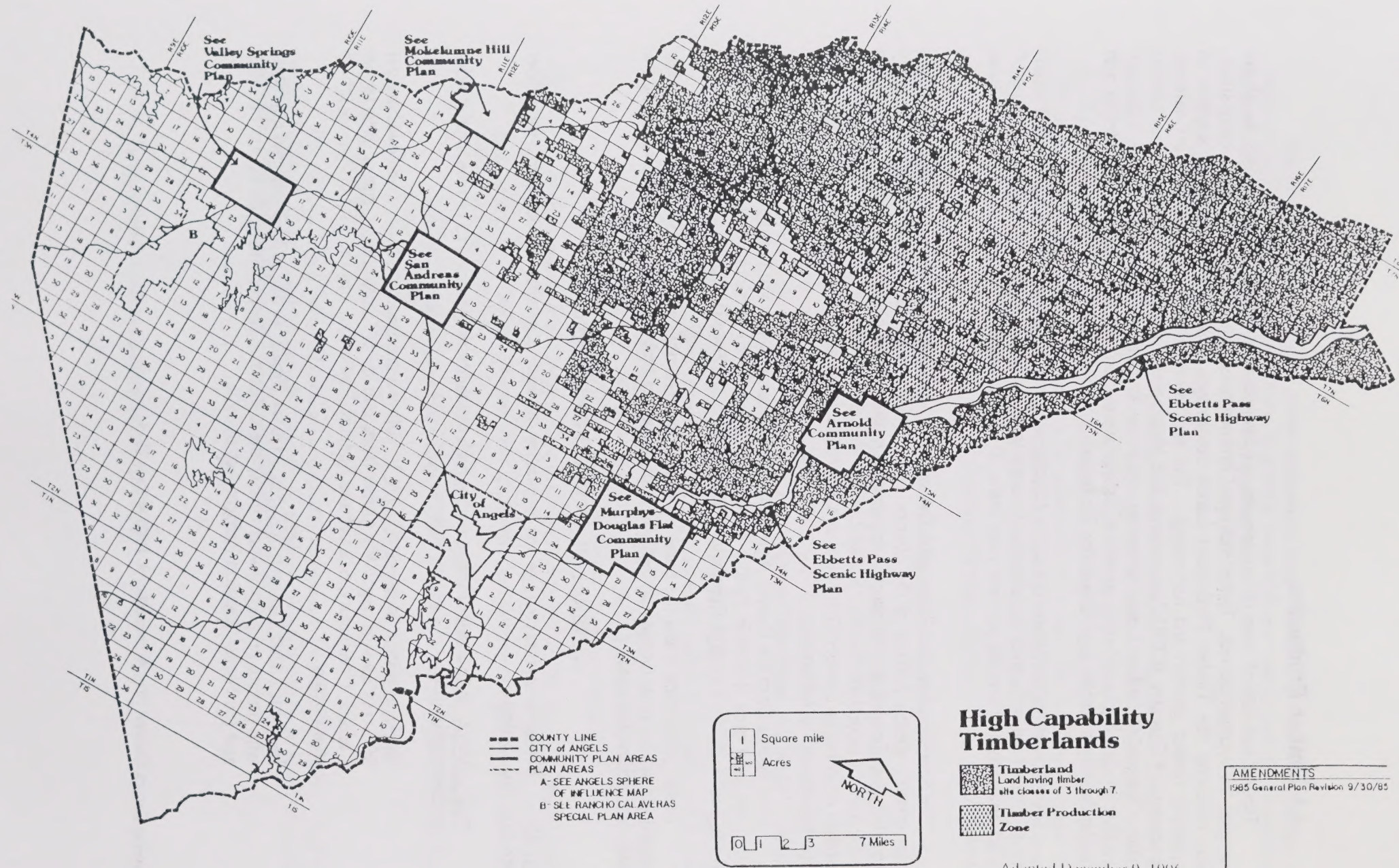
GENERAL PLAN RECOMMENDATIONS

Goal IV-3: Preserve and encourage the expansion of high capability timber lands for timber protection and harvest.

Policy IV-3A: Allow lands located within high capability timberlands to remain available for timber production.

Implementation Measure IV-3A-1: Allow a maximum density of one dwelling per 20 acres on high capability timber lands outside of Community Centers, Residential Centers, Community, Special and Specific Plan areas, and the City of Angels sphere of influence.

Implementation Measure IV-3A-2: Utilize Timber Production Zones and contracts with private property owners under the California Timber Productivity Act of 1982, and the Forest Taxation Reform Act of 1976.



CALAVERAS COUNTY GENERAL PLAN REVISION 1985

Goal IV-4: Maintain and increase timber land productivity.

Policy IV-4A: Encourage sustained yield timber production and harvest.

Implementation Measure IV-4A-1: Utilize applicable provisions of the Forest Improvement Act of 1978 (Public Resources Code section 4790 *et seq.*).

5.0 Mineral Resources

Areas receiving the Mineral Resource Lands designation have naturally occurring deposits of chemical elements or compounds formed from inorganic processes and organic substances. Mineral lands include both surface and subsurface deposits.

5.1 Mining History

The Gold Rush of the mid-1800's provided the major attraction to Calaveras County and the rest of the Mother Lode. Since that time, mining has been a major component of the County's economy and livelihood. Between 1880 and 1962, the recorded value of minerals produced in Calaveras County amounted to over \$200 million. Of that total, gold, limestone and copper accounted for the greatest amount. Although production figures are not available for the large quantities of gold that were mined before 1880, it is documented that the largest single piece of gold ever found in the Western Hemisphere -- weighing close to 150 pounds -- was unearthed at Carson Hill on November 22, 1854. Other minerals extracted in quantity in the past include quartz crystal, copper, zinc, silver, lead, chromite, clay, sand, gravel and stone. At least 26 minerals have been produced commercially within the County. In more recent years, limestone, asbestos, sand and gravel, industrial minerals, and gold have accounted for most of the County's mining industry.

Even with increases in recycling of mineral products, a large demand remains for newly mined materials. New mineral discoveries are being made; however, development of new mines is a long process, often requiring several years and substantial investment before operation begins.

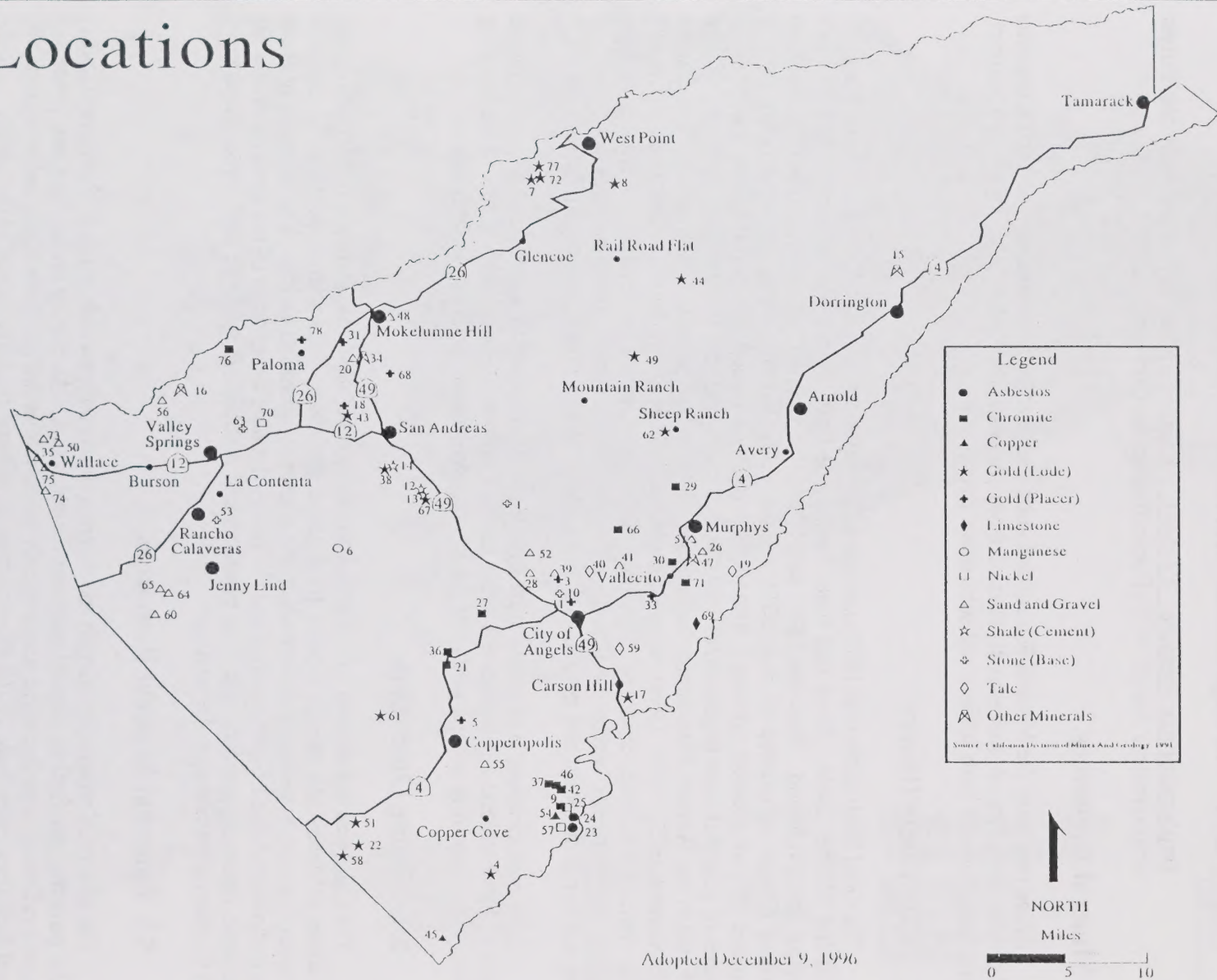
5.2 Mining Operations

The California Department of Conservation Division of Mines and Geology (DMG) maintains a database of mines and mining activity throughout the state. This source identifies 77 mines in Calaveras County; however, more than half are presently classified as idle. The location of these mines is shown in Mine Location map, Page IV-12. A detailed description of the products and a list of the name, operating company, the main products and operational status of each mine is contained in the Conservation Element Appendix.

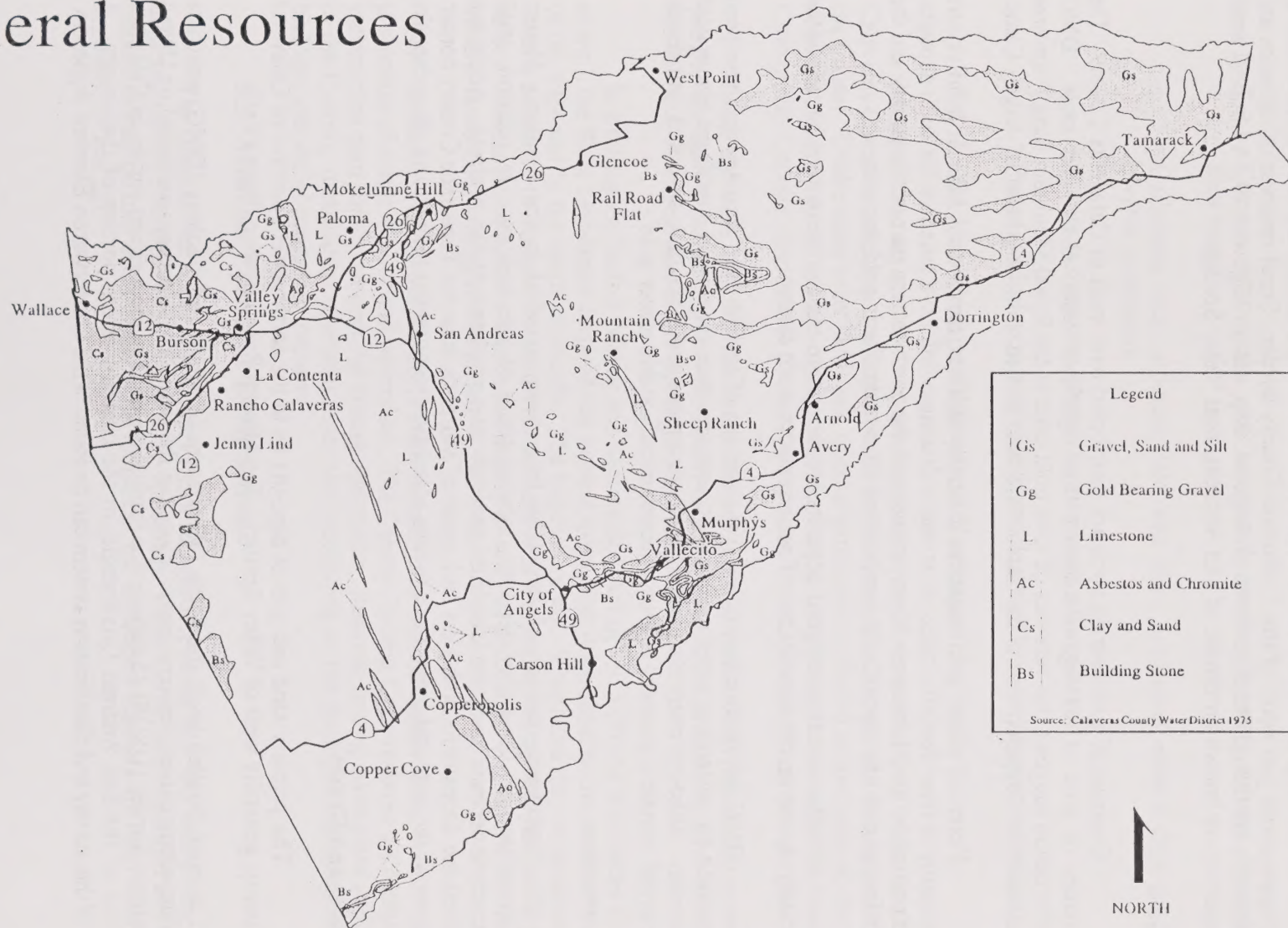
5.3 Potential Mineral Resources

The history of mineral production and recent surveys suggest that much of Calaveras County has the potential for further mineral resource development. As mining technology and processes improve over time, sites that were economically infeasible in the past may again become lucrative. Mineral Resource map, Page IV-13 shows potential mineral resources areas in the county.

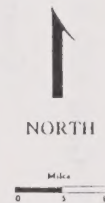
Mine Locations



Mineral Resources



Adopted December 9, 1996



Asbestos and Chromite

Asbestos and chromite reserves are located in three general areas. As indicated above, the two existing, though abandoned, asbestos sites in the county are located southeast of Copperopolis just north of the Tuolumne County border. Small reserves of asbestos and chromite are thought to exist north of Angels Camp, east of Highway 49. Additional small reserves are known northwest of San Andreas, near Valley Springs.

Gold

Deposits of gold-bearing rock are distributed over most of Calaveras County. The history of gold in the region suggests that significant reserves may yet exist. DMG information suggests that reserves of lode gold exist in the Royal Mountain King Mine area just north of Copperopolis and the Carson Hill mine located south-southeast of Angels Camp.

Potential placer gold deposits exist through out the county. Placer gold occurs primarily in river deposits; thus, most major drainages will have potential for such deposits. In particular, the Mokelumne River drainage in the northwestern part of the county and the drainages east of Angels Camp are believed to contain placer gold deposits.

Finally, several placer gold deposits are thought to exist in the eastern portion of the county; however, the significance of such deposits is not clear.

DMG information points out that remnants of ancient river channels that have been covered by volcanic or other geologic occurrences may yet contain significant placer gold deposits. Although many such areas have been prospected in the past, so-called "auriferous gravels" remain a potential source of economically viable placer gold.

Limestone

Significant reserves of limestone have been classified in the Kentucky House, Calaveritas, and Cave City deposits, located south of San Andreas. In addition, small limestone deposits have been identified generally east-southeast of San Andreas. Additional limestone deposits lie both west and south of Murphys, near the Tuolumne County border. Some of the potential limestone deposits also have the potential for talc and silica deposits as well.

Sand and Gravel

The primary sand and gravel deposits lie in the northwestern portion of Calaveras County, generally west of Valley Springs. See Mineral Resource map, Page IV-13.

At a more detailed level, the State Department of Mines and Geology (DMG) conducts surveys of important mineral resource areas throughout the state. These surveys are based on United States Geologic Survey (USGS) 15 minute quadrangle maps. The most recent survey in Calaveras County was of the San Andreas Quadrangle, in the central-western portion of the county. A summary of this survey and classification system can be found in the Conservation Element Appendix.

The DMG survey notes five classes of minerals that are judged to be, or likely to be, present in the San Andreas Quadrangle. These classes are:

1. Base and precious metals (deposits formed by hydrothermal processes).
2. Copper, zinc, gold, and associated metals (deposits formed by volcanogenic processes).
3. Carbonate rock, asbestos, talc, and silica (industrial mineral deposits formed by diverse processes).
4. Chromite (deposits formed by magmatic concentration).
5. Placer gold (deposits formed by residual and mechanical concentrations).

5.4 Land Use Compatibility and Reclamation

Mineral deposits are rare occurrences, occupying a very small part of the earth's surface. Calaveras County is unique in that both metallic and nonmetallic deposits are widespread throughout the County. Unlike many other land uses, mineral extraction is limited to the physical site where the minerals occur. As a result, mineral resource lands do not coincide with the boundaries of Community Centers, Residential Centers, Community Plans, Special Plans, or Specific Plans.

In the last three decades, the County has experienced tremendous population growth. Many people, especially those moving into the County or buying recreation properties, have concerns about the impacts of mining operations on neighboring property.

In enacting the Surface Mining and Reclamation Act of 1975 (Public Resources Code §2710 *et seq.*), the State Legislature declared that mineral extraction is essential to the economic well-being of the state and to the needs of society. The Legislature also recognized that reclamation of mined lands is necessary to mitigate the environmental effects of mining and to protect the public health and safety. Reclamation permits continued mining as well as protection and future beneficial use of mineral lands after mining is completed.

Reclamation plans specifically provide for control of erosion and flooding, waste disposal, and protection of water quality and watershed. The County Zoning Code requires a County-approved reclamation plan for all commercial mining operations. Because mining takes place in diverse areas in the County, reclamation operations may vary according to the geologic, topographic, climatic, biologic and social conditions present.

5.5 Mineral Resource Designation

The General Plan divides the County's mineral resource areas into four categories, which are depicted on the Potential Mineral Resource Area Map, Page IV-16, and explained in Table IV-4. Mineral extraction may occur in any of the four areas, but significant deposits are more likely to occur in Areas 2A and 2B.

Local study and evaluation of the County's mineral resource lands considered lands of potential local significance as well as those of potential state and regional significance. Local evaluation is performed in addition to studies and designation made by the State Geologist.

TABLE IV-4 MINERAL RESOURCE AREAS	
MRA1: Mineral Resource Area 1	Lands not known to contain significant mineral deposits. Isolated mineral occurrences may occur within this area.
MRA2A: Mineral Resource Area 2A	Lands that are being, or have been, intensively mined, and/or that have promise of further mineral production.
MRA2B: Mineral Resource Area 2B	Lands that have had some mineral production in the past and/or that may be expected to have some mining in the future.
MRA3: Mineral Resource Area 3	Lands that might contain minable deposits, but that up to now have not yet been sufficiently developed to demonstrate this.

GENERAL PLAN RECOMMENDATIONS

Goal IV-5: Preserve and manage the production of minerals to meet society's needs.

Policy IV-5A: Encourage the development of mining uses on lands containing commercially valuable mineral resources.

Policy IV-5B: Allow owners of land containing commercially valuable mineral resources outside of Mineral Resource Areas 2A and 2B to apply for appropriate mineral extraction zoning.

Implementation Measure IV-5B-1: Utilize the Mineral Extraction combining zone to identify lands with commercial mineral potential.

Implementation Measure IV-5B-2: Investigate the establishment of a Mineral Advisory Committee to make recommendations to the County regarding mineral resources potential.

Goal IV-6: Protect mineral resources from encroachment by incompatible land uses.

Policy IV-6A: Allow placement of the Mineral Extraction combining zone on lands identified for residential, commercial or industrial uses.

Implementation Measure IV-6A-1: Utilize the Mineral Extraction combining zone to identify property on which future mining activities may be proposed.

Policy IV-6B: Allow alternative uses and reduced parcel sizes on lands in Mineral Resource Areas 2A and 2B which do not contain commercially valuable mineral resources, if consistent with mining on nearby or adjacent properties.

Implementation Measure IV-6B-1: Consult the local mining association for recommendations when considering less than one dwelling unit per 20 acres on lands in Mineral Resource Area 2A outside of Community Centers, Residential Centers, Community and Special Plan areas, and the City of Angels Sphere of Influence.

Implementation Measure IV-6B-2: Consult the local mining association for recommendations when considering less than one dwelling unit per 10 acres on lands in Mineral Resource Area 2B outside of Community Centers, Residential Centers, Community and Special Plan areas, and the City of Angels Sphere of Influence.

Implementation Measure IV-6B-3: Develop regulations for permitting mining uses within Community Centers, Residential Centers, Community, Special and Specific Plan areas.

Goal IV-7: Balance the interest of the County's mining industry and residence.

Policy IV-7A: Review proposed mining activities for potential negative impacts such as noise, dust and traffic.

Implementation Measure IV-7A-1: Require buffer areas or other mitigation measures for new mining activities locating near existing residential uses.

Implementation Measure IV-7A-2: Require a use permit for all new mining operations in the County, except for small mines less than or equal to 5 acres or mines located in the M2 zone.

Goal IV-8: Protect public health and safety, and enable mined lands to be put to subsequent beneficial use.

Policy IV-8A: Review proposals for mineral extraction to assure minimal disturbance to the environment.

Implementation Measure IV-8A-1: Require that newly mined lands are reclaimed for open space, conservation, agriculture, recreation or other beneficial uses.

Implementation Measure IV-8A-2: Support and apply the Surface Mining and Reclamation Act of 1975 (Public Resources Code section 2710 *et seq.*).

6.0 Water Resources

The quantity, quality, and availability of water is vital to natural processes and human activity. Water is essential to develop housing, commerce, and industry; to maintain high quality fish and wildlife habitats; and to provide recreational uses.

Extending from the eastern part of California's Central Valley to the west slope of the Sierra Nevada Mountain Range, Calaveras County contains an abundance of water resources including surface water resources in the form of rivers, streams, and lakes, as well as reserves of groundwater. Significant hydrological features include three major rivers and numerous smaller streams, all flowing

in a generally southwestern direction. In addition to these natural channels, there are several main water supply ditches operated by water districts and public utilities. There are few flood plains, and the only large lakes are reservoir impoundments.

6.1 Precipitation

Because of the great difference in elevation from west to east in the county, precipitation varies. Average precipitation is 20 inches a year in the western region to 60 inches in the northeast. The rainy season is October 1 through May 1. Precipitation increases with altitude including both snow and rain in the higher elevations. Snow accounts for much of the precipitation in the higher elevations (up to 300 inches per year), while snowfall is rare in the foothills.

6.2 Surface Water Resources

Three significant rivers are the Calaveras, the Stanislaus, and the Mokelumne. These rivers carry the runoff of the west slope of the Sierra Nevada from east to west across Calaveras County, and into the Central Valley. These rivers provide significant habitat for wildlife. All three rivers are dammed in one or more places. The lower stretches of the rivers provide irrigation water for valley agriculture and are used as municipal water supplies.

Calaveras River originates in the Sierra Nevada mountains and extends west-southwest approximately 60 miles toward and through the Stockton metropolitan area, terminating at the San Joaquin River, outside of Calaveras County. The basin encompasses about 590 square miles, of which 227 lie below New Hogan Dam.

In the portion of the basin above New Hogan Dam and within the county, the primary tributaries are Esperanza, Jesus Maria, Calaveritas, San Antonio, and San Domingo Creeks. Below New Hogan Dam, the main tributaries in the county conveying runoff are the Cosgrove, Indian, and South Gulch.

The Stanislaus River drains a narrow basin of about 980 square miles above the foothills on the western slope of the San Joaquin River, forming the southern boundary of the county. Elevations range from 15 feet above sea level at the river mouth to 10,000 feet at the crest of the drainage area. There are three tributary forks (North, Middle and South) of the Stanislaus which join above New Melones Lake, about 3 miles north of Parrots Ferry. North Fork is located within the county; Middle and South are in Tuolumne County.

The Mokelumne River runs in three forks (North, Middle, and South) at the base of the Sierra Nevada in Alpine County. It flows southwest with the forks all joining near Lodi, then turns northwest to end in the Sacramento River delta lands, emptying into the San Joaquin river about 20 miles north of Stockton. The Mokelumne drains an area of about 661 square miles.

The river forms the county's northern boundary with neighboring Amador County, and was considered the division between the southern and northern mining districts during the Gold Rush.

Lakes and Reservoirs

No naturally-occurring lakes of notable size are located in the county, although some smaller, mountain lakes are found in the Sierra Nevada. The six major reservoirs are described below, and their features are summarized in Table IV-5. The locations of the reservoirs are shown on Water Resources map, Page IV-21.

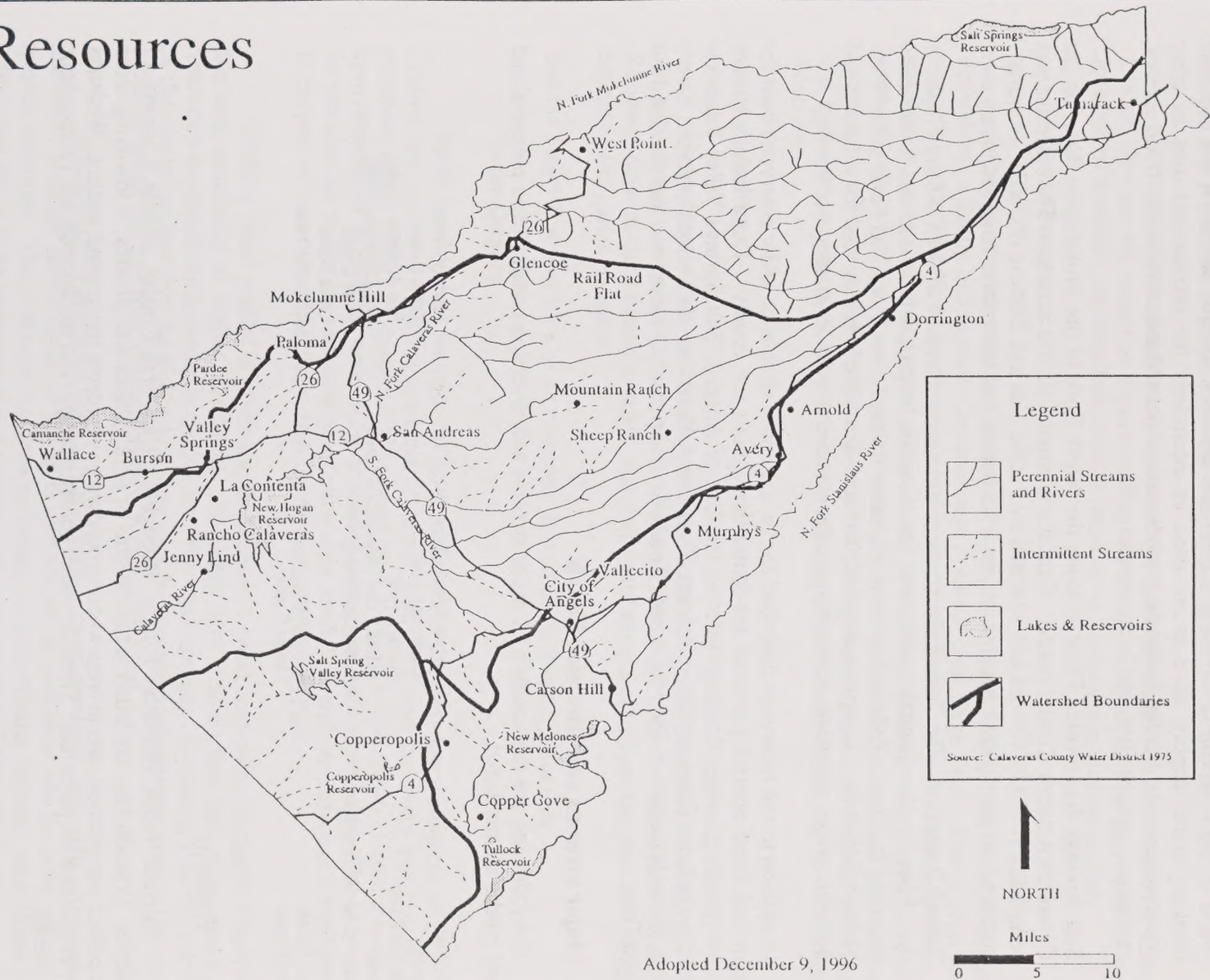
Camanche Reservoir. Owned by the East Bay Municipal Utility District, this reservoir on the Mokelumne River was completed in 1963, with additional recreational and power uses added in 1983. Capacity is 431,500 acre-feet. There are developed recreation areas at both the north shore (located in Amador County) and the south shore (located in Calaveras County). The lake can be used for swimming, fishing, boating, camping, and motel accommodations; RV hook-ups are available. Undeveloped lands are used for grazing. Camanche Reservoir is a source of municipal and industrial water supplies, as well as providing flood control.

TABLE IV-5 MAJOR RESERVOIRS Calaveras County, 1993						
Reservoir Name	Capacity (acre-feet)	Uses of Reservoir				
		Municipal Supply	Irrigation	Flood Control	Power	Recreation
Camanche	431,500	■		■	■	■
New Hogan	325,000		■	■		■
New Melones	2,400,000		■	■	■	■
Pardee	210,000	■		■	■	■
Salt Springs	140,000				■	■
Tulloch	50,000	■	■			■

New Hogan Reservoir. New Hogan Reservoir was completed by the Army Corps of Engineers in 1964 for purposes of flood control and water supply, and is located 28 miles northeast of Stockton along the Calaveras River. Storage capacity is 325,000 acre-feet. It is currently owned and managed by the Corps. The reservoir supplies irrigation water to the Stockton East Water District and the Calaveras County Water District. The reservoir provides multiple recreation uses, but is not as developed as Camanche. Substantial recreational use includes fishing, boating, swimming, camping, and sightseeing.

New Melones Reservoir. One of California's largest reservoirs, New Melones on the Stanislaus River was completed in 1978 by the U.S. Bureau of Reclamation with a capacity for 2,400,000 acre-feet. New Melones provides irrigation water, flood control, recreational opportunities, and hydroelectric power.

Water Resources



Pardee Reservoir. Also owned by East Bay Municipal Utility District, Pardee straddles the Mokelumne River above Camanche. Completed in 1929, its capacity is 210,000 acre-feet. Water in this reservoir is subject to strict water quality standards because it is a domestic drinking water supply, so it is not used as intensively for recreational uses as other county reservoirs. Pardee Reservoir provides municipal and industrial water, flood control, recreation opportunities, and hydroelectric power.

Salt Springs Reservoir. Located along the North Fork of the Mokelumne River on the Calaveras/Amador County border. Capacity is about 140,000 acre-feet. The reservoir was completed in 1931. Owned and operated by Pacific Gas and Electric (PG&E), its primary purpose is to supply hydroelectric power, with fishing and recreation being secondary uses.

Tulloch Reservoir. The Tulloch Reservoir was developed as part of the Tri-Dam Project in the 1950s by the Oakdale and South San Joaquin Irrigation Districts, and is currently managed by them. Tulloch Reservoir is located on the lower Stanislaus River below New Melones Reservoir. Capacity is about 50,000 acre-feet. The water is used for irrigation and domestic water purposes. Recreational opportunities include swimming and boating.

In addition to the reservoirs described above, a number of smaller, older reservoirs built for irrigation and flood control purposes are found throughout the county. These include Hunter Reservoir (which provides drinking water to the City of Angels), Salt Springs Valley Reservoir (operated by the Rock Creek Irrigation District), Tiger Creek Reservoir, Calaveras Reservoir, Emery Reservoir, Schaads Reservoir, Old McCormick Reservoir, Copperopolis Reservoir, and the Goodwin Diversion Dam.

Major Streams and Diversion Canals

The following are the county's 22 major streams and diversion canals; lesser perennial and seasonal creeks are not listed.

Angel's Creek	Coyote Creek	Murray Creek
Bear Creek	Esperanza Creek	Rock Creek
Big Meadow Creek	Forest Creek	San Antonio Creek
Blue Creek	Indian Creek	San Domingo Creek
Calaveras Public Utility Ditch	Jesus Maria Creek	Slate Creek
Calaveritas Creek	Littlejohns Creek	Utica Ditch
Cherokee Creek	Love Creek	Youngs Creek
Cosgrove Creek	Mill Creek	
	Moore Creek	

Wetlands

Surface water resources located throughout Calaveras County include a variety of wetlands. Typically they are found at the margins of ponds, lakes and streams, in low-lying areas that collect precipitation, and in areas where groundwater intercepts the ground surface. Wetlands may be seasonal or perennial. There are many constructed ponds (stockponds, etc.) throughout the county.

Wetlands are highly productive natural habitats used for foraging and nesting by many types of wildlife. These areas are given a high priority for protection by the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

Because of the widespread extent and the relatively small size of wetlands in Calaveras County, they are not shown on Figure 1. The biological resource function types and the general location of wetlands are identified in more detail in the biological resources section.

Groundwater

Groundwater resources in Calaveras County are highly variable with respect to quantity, dependability, depth, and quality. Groundwater Potential map, Page IV-24, shows groundwater potential areas as defined by the (earlier) County General Plan. These areas range from high potential in the east-central portion of the county, to moderate potential east of Highway 49 and west of Valley Springs. Low potential areas are found in the eastern uplands and the foothill valleys west of Highway 49. Pockets of very low yield groundwater or mineralized groundwater are found in roughly a north-south line extending from Pardee Reservoir to New Melones Reservoir.

Flooding

Flood plains in Calaveras County are very minor due to the deep ravines which have been cut by the rivers and the presence of flood control dams at the major reservoirs. Streamside flooding, slow surface drainage areas, and dam inundation areas (from the potential failure of existing dams) are a concern.

See the Safety Element for a more complete discussion of flooding concerns.

Water Quality

Water quality data sources for both surface and groundwater resources in Calaveras County are scattered. Data is available for some reservoirs, and for rivers and streams near proposed major county or commercial projects such as landfills and mines. Groundwater data from domestic or monitoring wells is also available mainly from these same areas. The U.S. Forest Service also has qualitative and some quantitative data on surface and groundwater quality for the 11 percent of the county that lies within the Stanislaus National Forest.

Surface water quality is generally satisfactory to good, improving in quality (relative to drinking standards) at higher elevations. Available data indicate that the major rivers and reservoirs are significantly better in quality than the small streams. However, this may partially be due to the fact that the available stream data is from the southwestern area of the county which contains soil and rock formations high in mineral content.

Groundwater is generally within most drinking water standards, although some areas of the lower foothills appear to be very high in iron content as well as in certain other minerals in specific locations. This is due to the slow movement of groundwater through mineralized rock formations and is to be unexpected in a mineral-rich region such as Calaveras County.

6.3 Public Water/Utilities

Six different public utilities currently supply water to approximately two-thirds of the County's population, as shown in Table IV-6.

TABLE IV-6 PUBLIC AGENCY WATER PURVEYORS Calaveras County, 1993	
Water Agency	Area Served
Angels Camp Utilities	City of Angels
Calaveras County Water District (CCWD)	Ebbetts Pass, Copperopolis, Copper Cove, West Point, Wilseville, Sheep Ranch, LaContenta/ Rancho Calaveras
Calaveras Public Utility District (CPUD)	San Andreas, Mokelumne Hill, Glencoe, Rail Road Flat, Paloma
Murphys Union Public Utility District	Murphys, Douglas Flat, Vallecito
Pacific Gas and Electric (PG&E)	Sells water wholesale to public utility districts from a system of four reservoirs located outside the county.
Valley Springs Public Utility District (VSPUD)	Valley Springs

The Calaveras County Water District (CCWD) is the major supplier of water to large areas of the county, while three public utility districts and the City of Angels supply their respective local areas.

Mutual Water Companies

In addition to the public water purveyors listed above, there are a growing number of mutual water companies. These are owned and operated by private property owner associations and are listed in the following table.

TABLE IV-7 MUTUAL WATER COMPANIES Calaveras County, 1993	
Water Company	Area Served
Blue Lake Springs Mutual Water Company	Blue Lake Springs Subdivision, Arnold
Fly-In Acres Water Company	Fly-In Acres Subdivision, Ebbetts Pass
Lili Valley Water Company	West Point area
Mineral Mountain Estates	Avery/Sheep Ranch Road
Sherman Acres	Ebbetts Pass area
Showshoe Springs Water Company	Snowshoe Springs Subdivision, Ebbetts Pass area

Water Rights

In most cases, the water suppliers in Calaveras County have sufficient water rights to meet expected requirements in the County. The more immediate problem is the generation of capital to develop the storage and distribution facilities needed to use the water.

GENERAL PLAN RECOMMENDATIONS

Goal IV-9: Preserve the County's current water rights and additional water rights necessary to support the County's full development potential.

Policy IV-9A: Support the development of water projects in the County for domestic and irrigation purposes.

Implementation measure IV-9A-1: Pursue available funding sources for the development of water projects in the County.

Goal IV-10: Provide for adequate domestic water supplies.

Policy IV-10A: Encourage continued cooperation among water suppliers in meeting the water needs for the County as a whole.

Implementation Measure IV-10A-1: Achieve orderly expansion of water districts in the County through Local Agency Formation Commission (LAFCO) review.

7.0 ENERGY SYSTEM

The energy system in Calaveras County is a complex system not only dependent on local resources but also upon state, national, and international resources.

Fossil fuels (oil, natural gas, and coal), which supply most of the world's current energy use, are now realized to be finite and virtually non-renewable.

The County's energy system operating today relies heavily upon imported fossil fuels which in time will become even more scarce and ever increasing in cost.

One solution to energy supply problem rests in making a "transition" to a more efficient energy system plus one that relies on alternative energy sources. Significant energy and dollars can be saved through various conservation measures. Additionally, Calaveras County is fortunate to have an abundance of alternative energy sources. The combined potential of indigenous energy sources such as hydro, solar, wind, and biomass exceeds current and projected energy needs for the County's future.

Conversion Factors

Energy is measured in British Thermal Units (BTU's). One BTU represents the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit. For comparison purposes, the following conversion factors are provided:

Cubic Foot of natural gas	1,000 BTU
Kilowatt Hour (KWH) of electricity (at the outlet)	3,423 BTU
Kilowatt Hour of electricity (at the generating plant)	10,500 BTU
Gallon of propane	91,500 BTU
Therm of natural gas	100,000 BTU
Gallon of regular gasoline	119,000 BTU
Gallon of diesel fuel	136,000 BTU
Barrel of aviation fuel	5,048,000 BTU
Cord of Wood	20,000,000 BTU

Leadership at the local level can assist a smooth transition to an efficient, renewable energy-based economy. Realizing the energy opportunities available locally will require commitment and involvement from the entire community.

GENERAL PLAN RECOMMENDATIONS

Goal IV-11: Provide for a smooth transition for the use of renewable resources.

Policy IV-11A: Encourage the reduced use of fossil fuels through conservation efforts and the use of alternative forms of energy.

Implementation Measure IV-11A-1: Continue a program to provide energy conservation and development information for agencies, developers, and the general public.

Policy IV-11B: Promote the capability of solar energy use by future residential subdivisions.

Implementation Measure IV-11B-1: Implement the State's Solar Rights Act and Shade Control Act.

Goal IV-12: Reduce the use of non-renewable energy in both the transportation and stationary sector.

Policy IV-12A: Encourage energy savings in all buildings through modifications in building and equipment operation and design.

Implementation Measure IV-12A-1: Investigate the development of local energy standards for all new buildings in the County as a compliment to State standards.

Policy IV-12B: Promote the use of carpooling, walking, and bicycling.

Implementation Measure IV-12B-1: Investigate the establishment of a formal ridesharing program in the County.

Implementation Measure IV-12B-2: Strive to develop facilities to encourage bicycling and walking in the County.

Goal IV-13: Provide for development of hydro, solar, wind, and biomass resources to serve local residents, businesses, and industry.

Policy IV-13A: Promote the development of hydro-electric facilities in the County.

Policy IV-13B: Encourage the use of solar energy especially in regard to space conditioning and domestic water heating in all new buildings.

Policy IV-13C: Encourage the use of biomass energy in the forest products industry, and solid and municipal waste management activities.

Policy IV-13D: Encourage the use of wind for mechanical power and electrical power.

Implementation Measure IV-13D-1: Solicit assistance in the development of alternative energy resources from federal and State governments, utilities, municipalities, and the development community.

OPEN SPACE ELEMENT

1.0 Introduction

Open space, including both land and water, is a limited and valuable resource. The California Legislature has declared the importance of preserving open space for the enjoyment of scenic beauty, for recreation, and for the use of natural resources.

This element addresses open space from two perspectives:

- The relationship of open space to natural resources preservation, including the protection of rare and endangered species and ecologically sensitive areas; and
- The role of open space in providing recreational land and cultural opportunities.

The use of open space for the managed production of natural resources, including forestry, mining and agriculture is discussed in the Conservation Element. The regulation of open space in the interest of public health and safety is addressed in the Conservation and Safety Elements. The above four perspectives of open space discussed in this and the Conservation and Safety Elements are not mutually exclusive, and are often compatible. For example, some wildlife habitat may be capable of supporting properly managed timber harvesting or grazing. Similarly, some watershed areas may also provide recreational opportunities.

1.1 Legal Authority

The legal requirements for the Open Space Element are included in Section 65560 et. seq. and 65302(e) of the California Government Code. The Open Space Element is a plan for the comprehensive and long-range preservation and conservation of "open space land". Open space land is defined in the statutes as any area of land or water which is essentially unimproved and devoted to an open space use; and which is designated on a local, regional, or State open space plan as open space for the preservation of natural resources, managed production of resources, outdoor recreation, or for public health and safety.

In adopting the requirement that all jurisdictions must prepare an Open Space element, the Legislature found that the preservation of open space land is necessary not only for the maintenance of the economy of the State, but also for the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation, and for the use of natural resources. The Legislature further found that discouraging premature and unnecessary conversion of open space to urban uses is in the public interest because it discourages non-contiguous development patterns which tend to increase the costs of community services to community residents.

1.2 Relationship to Other General Plan Elements

Together with the closely related Conservation Element, the Open Space Element sets forth Calaveras County's policies concerning natural resources. Both elements are integrated with the Plan's policies regarding Land Use, Safety and Noise.

2.0 Ecological Resource Areas

With its varied elevations from valleys to foothills to mountain ranges, Calaveras County contains many different habitats which support a rich diversity of plant and animal life.

The locations of various types of vegetation are shown on Vegetation Data map, Page V-3. The biological communities are based on the California Department of Fish and Game's Wildlife Habitat Relationships classifications. A detailed description of the communities is included in the Open Space Appendix.

The locations of key wildlife habitats and other significant wildlife areas are shown on Key Wildlife Habitats map, Page V-6 and Significant Wildlife Habitats map, Page V-7, respectively.

2.1 Rare Natural Plant Communities

The California Department of Fish and Game maintains a list of plant communities within the state that are of special concern. This includes communities that have historically had a limited distribution as well as communities that have become limited because of human activities. There are two such Natural Plant Communities present in Calaveras County, the Big Tree Forest and the Ione Chaparral.

Big Tree Forest

The Big Tree Forest consists of large stands of giant sequoias that are present in isolated groves along the west slope of the Sierra Nevada. These groves are the remnants of forests that were once prominent throughout the United States and are now limited to this scattered distribution pattern.

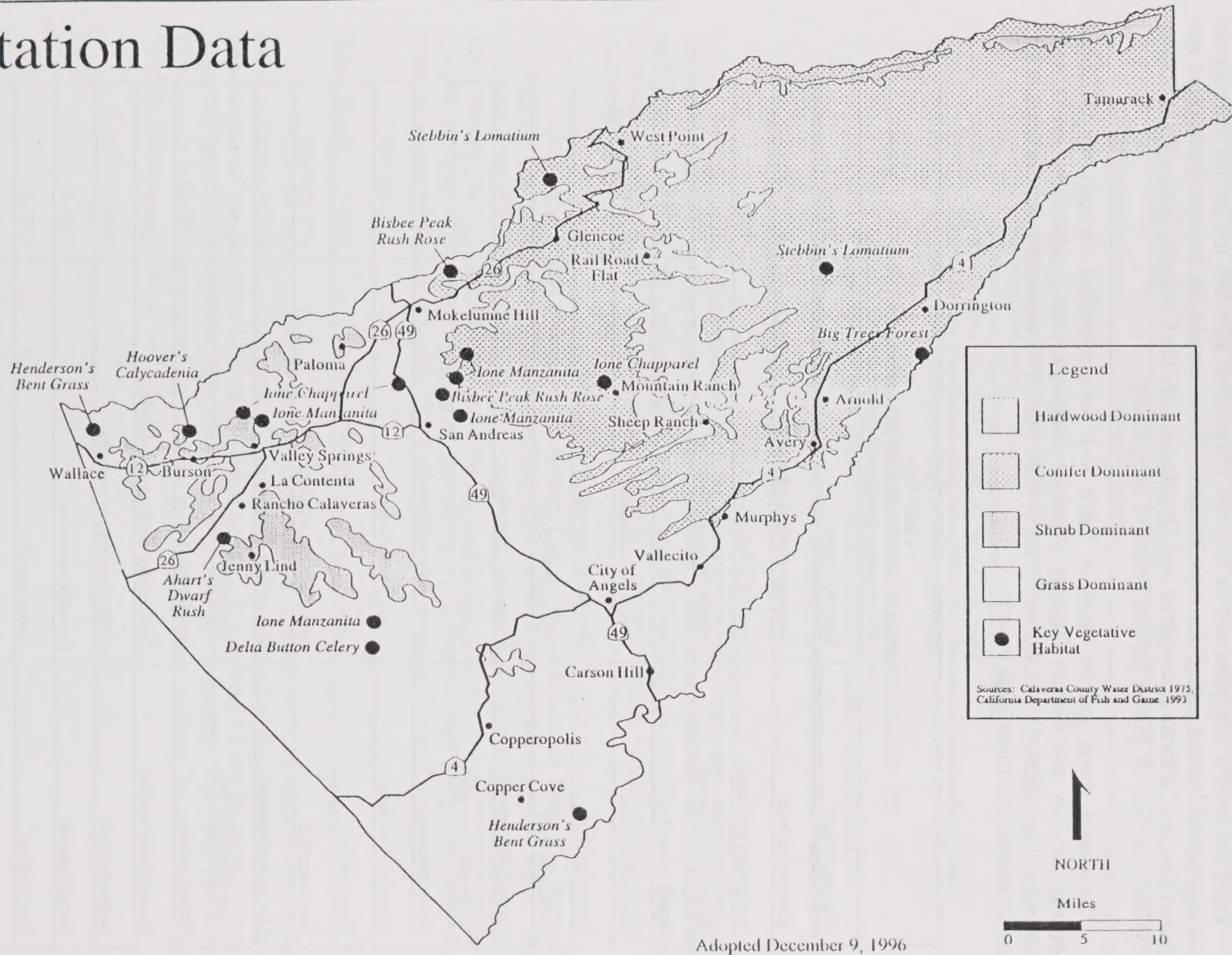
There is one occurrence of big tree forest in Calaveras County, the North Calaveras Grove in the Calaveras Big Trees State Park. This is shown on Vegetation Data map, Page V-3.

Ione Chaparral

This is a unique plant community of the Sierra foothills found in a few isolated patches north and south of the small town of Ione in Amador County. Ione manzanita is one of the rare plants associated with this dwarf-chaparral type brush community. The sterile soil is also known as Ione, and consists of ancient acidic clay. Most chaparral shrubs cannot tolerate the harsh conditions characteristic of this soil, and those that do are sparsely distributed and stunted. The dwarf Ione chaparral community is distinctive alongside the taller, more typical chaparral found on adjacent soils.

There are three occurrences of Ione chaparral in Calaveras County near Mokelumne Hill, along the north fork of Murray Creek, and north of Valley Springs Peak. These locations are shown on Vegetation Data map, Page V-3.

Vegetation Data



2.2 Significant Vegetative Habitat

There are several lists generated by different government agencies and groups that indicate various degrees of "special status" for plant species. These include the Federal Endangered and Threatened List; the California Endangered and Threatened List; the California Native Plant Society (CNPS) list; and the U.S. Forest Service Sensitive Species list.

The special status species listed in Table V-1 were identified through the California Department of Fish and Game's *Natural Diversity Database* (1993), the *Land & Resource Management Plan: Stanislaus National Forest* (1991), the CNPS inventory, and discussions with rangers, botanists, and other local experts.

Common Name	Scientific Name	Status
Ahart's dwarf rush	<i>Juncus leiostermus</i> var. <i>aharti</i>	FC1, CNP-1B
Bacigalupi's perideridia	<i>Perideridia Bacigalupii</i>	CNP-4
Bisbee Peak rush-rose	<i>Helianthemum sulfrutescens</i>	FC2, CNP-3
Davy's sedge	<i>Carex davvi</i>	CNP-4
Delta button celery	<i>Eryngium racemosum</i>	FC2, SE, CNP-1B
Ewan's larkspur	<i>Delphinium hansenii</i> ssp. <i>ewanianum</i>	CNP-4
Foothill jepsonia	<i>Jepsonia heterandra</i>	CNP-4
Fresno ceanothus	<i>Ceanothus fresnensis</i>	CNP-4
Henderson's bent grass	<i>Agrostis hendersonii</i>	FC2, CNP-3
Hoary navarretia	<i>Navarretia eriocephala</i>	CNP-4
Hoover's calycadenia	<i>Calycadenia hooveri</i>	FC2, CNP-1B
Humboldt lily	<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	CNP-4
Iron manzanita	<i>Arctostaphylos myrtifolia</i>	FC1, CNP-1B
Mariposa cryptantha	<i>Cryptantha mariposae</i>	CNP-4
Pansy monkeyflower	<i>Mimulus pulchellus</i>	CNP-4
Parry's horkelia	<i>Horkelia parryi</i>	CNP-1B
Round woolly marbles	<i>Psilocarphus tenellus</i> var. <i>globiferus</i>	CNP-4
Sanborn's onion	<i>Allium sanbornii</i> var. <i>sanbornii</i>	CNP-4
Sierra bolandra	<i>Bolandra californica</i>	CNP-4
Sierra clarkia	<i>Clarkia virgata</i>	CNP-4
Sierra monardella	<i>Monardella candicans</i>	CNP-4

Small-flowered monkeyflower	Mimulus inconspicuus	CNP-4
Stebbins' lomatium	Lomatium Stebbinsii	FC2, CNP1-B
Three-bracted onion	Allium tribracteatum	CNP-1B
Tuolumne button celery	Eryngium pinnatisectum	CNP-4
Whipple's monkeyflower	Mimulus whipplei	CNP-1A

Key

FC1	Federal candidate for listing with sufficient biological data
FC2	Federal candidate for listing but biological data lacking
SE	State-endangered species
CNP-1A	California Native Plant Society, plants presumed extinct in California
CNP-1B	California Native Plant Society, plants eligible for state listing
CNP-3	California Native Plant Society, plants about which more information is needed for eligibility
CNP-4	California Native Plant Society, plants of limited distribution

Sources: California Department of Fish and Game. *Natural Diversity Database*. July, 1993.
California Native Plant Society. *Rare Plant Inventory*. July, 1993.
U.S. Forest Service. *Land & Resource Management Plan: Stanislaus National Forest*. 1991.

2.3 Significant Wildlife Habitat

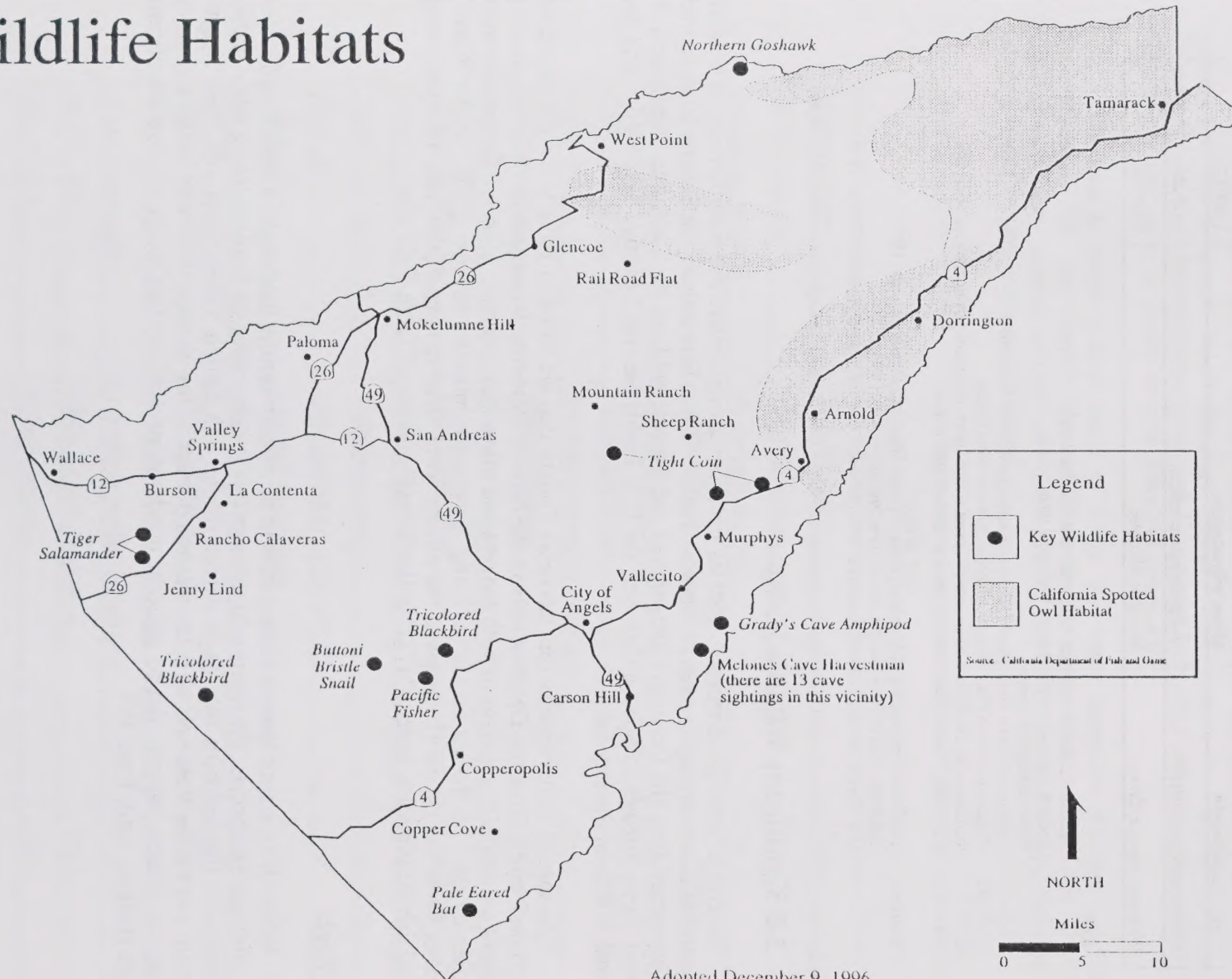
Several different governmental agencies and other groups create and maintain lists of wildlife species that indicate varying degrees of "special status." These lists include the Federal Endangered and Threatened List; the California Endangered and Threatened List; the California Department of Fish and Game Species of Special Concern; the U.S. Forest Service Sensitive Species list; and the National Audubon Society list.

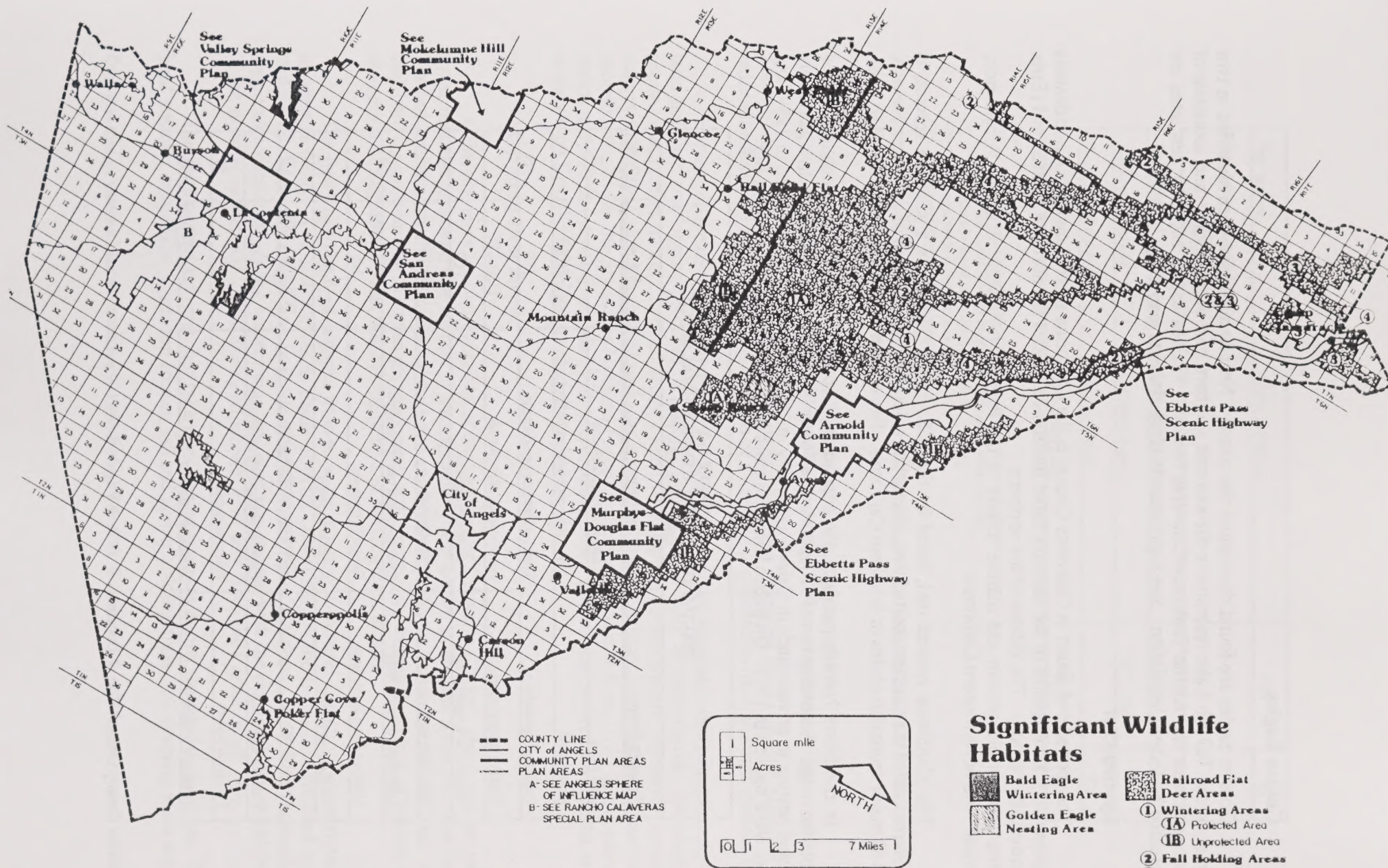
The special status species for Calaveras County that are listed in Table V-2 were identified through the Natural Diversity Database (1993), the *Land & Resource Management Plan: Stanislaus National Forest* (1991), discussions with rangers and other local experts. Some of the species were identified by the U.S. Forest Service as being "forestwide indicator species" ("FIS" in the "Class" column of Table V-2) in the 11 percent of the county within the National Forest; and others as being "special habitat indicator species" ("SI" in the "Class" column of Table V-2).

Bald Eagle

While there are no known nesting sites in the county for the bald eagle, a federal and state-listed endangered species, the raptors do use some of the reservoirs as over-wintering sites. Small populations of the southern bald eagle winter around Salt Spring Valley Reservoir, New Hogan Reservoir, and Pardee Reservoir, all in the western portion of the county. They stay in the area from October to March, ranging out to adjacent ponds or streams looking for prey. See Significant Wildlife Habitats map, Page V-7.

Key Wildlife Habitats





CALAVERAS COUNTY GENERAL PLAN REVISION 1985

Significant Wildlife Habitats

Adopted December 9, 1996

Golden Eagles

Golden eagles are found throughout the county. Nesting sites have been identified in two areas: at the Tulloch Lake reservoir in the extreme southern part of the county, and southeast of Tamarack near the Alpine/Tuolumne/Calaveras borders. Golden eagles and their nest sites are protected by federal legislation. See Significant Wildlife Habitats map, Page V-7.

Spotted Owl

The spotted owl found in Calaveras County is the California spotted owl (*Strix occidentalis occidentalis*), a subspecies of the federally listed threatened species the northern spotted owl (*Strix occidentalis caurina*). The habitat of the northern spotted owl is old-growth and mature forests in the Pacific Northwest, including Washington, Oregon, and northwestern California.

The California spotted owl, listed by the U.S. Forest Service as a sensitive species, is sometimes called the southern spotted owl. It inhabits a 400-mile long stretch of the Sierra Nevada, and all major mountain chains in Southern California. Fewer than 2,000 pairs are believed to exist.

In the Sierra Nevada province, the population is contiguous and fairly evenly distributed within the range. According to a 1992 report by the Forest Service on this subspecies, five pairs were sighted nesting in private lands in Calaveras County in 1970, one pair was confirmed in 1987, and none were sighted in 1991. On public land, two pairs have been found in Calaveras Big

TABLE V-2
SPECIAL STATUS AND OTHER ANIMAL SPECIES
Calaveras County, 1993

Common Name	Scientific Name	Status	Class
Bald eagle	<i>Haliaeetus leucocephalus</i>	FE	SI
Bristle snail	<i>Monadenia mormonum buttoni</i>	FC2	
California spotted owl	<i>Strix occidentalis occidentalis</i>	FSS	FIS
California tiger salamander	<i>Ambystoma californiense</i>	FC2, CSC	
Grady's Cave amphipod	<i>Stygobromus gradyi</i>	FC2	
Great grey owl	<i>Strix nebulosa</i>	SE, FSS	SI
Lahontan cutthroat trout	<i>Oncorhynchus clarki henshawi</i>	FT	SI
Melones Cave harvestman	<i>Banksula melones</i>	NE	
Northern goshawk	<i>Accipiter gentilis</i>	FC2, CSC, FSS	FIS
Pacific fisher	<i>Martes pennanti pacifica</i>	FC2, CSC, FSS	FIS
Pale big eared bat	<i>Plecotus townsendii pallescens</i>	NE, CSC	
Peregrine falcon	<i>Falco peregrinus</i>	FE	SI
Pileated woodpecker	<i>Dryocopus pileatus</i>	-	FIS

Pine marten	<i>Martes americana</i>	FSS	FIS
Riparian bird species e.g., Wilson's warbler, Yellow warbler		-	FIS
Tight con	<i>Ammonitella vatesi</i>	FC2	
Tricolored blackbird	<i>Agelaius tricolor</i>	FC2, CSC	
Western grey squirrel	<i>Sciurus griseus</i>	-	FIS
Willow flycatcher	<i>Empidonax traillii</i>	FSS	FIS

Key

CSC	California Department of Fish and Game, Special Concern species
FC2	Federal candidate for listing but biological data lacking
FE	Federally-listed endangered species
FIS	Forestwide indicator species
FSS	Forest Service sensitive species
FT	Federally-listed threatened species
NE	Not established as candidate species but listed in California Natural Diversity Database
SE	State-listed endangered species
SI	Special Habitat Indicator Species

Sources: California Department of Fish and Game, *Natural Diversity Database*, July, 1993.
U.S. Forest Service, *Land & Resource Management Plan: Stanislaus National Forest*, 1991.

Trees State Park. As of March 1, 1993, logging has been restricted for a two-year period in the federal forests in the Sierra Nevada as a means of extending protection to the California spotted owl.

Habitat requirements of spotted owls are quite controversial, especially with respect to private land holdings and logging practices in national forests. Like their northern cousin, the southern spotted owl prefers densely forested areas, often in old-growth conifer forests. However, research suggests that the California spotted owl uses a broader array of habitats than used by the northern spotted owl. Within the Stanislaus National Forest, it nests at elevations from 3,000 feet in pin-oak stands to 7,500 feet in red-fir stands. The approximate extent of potential spotted owl habitat areas is shown on Key Wildlife Habitats map, Page V-6

Migrating Deer Herds

Generally, there are two categories of deer that inhabit Calaveras County: those that are year-round residents and those that are part of the migratory group known as the Rail Road Flat deer herd. The resident deer have wide-spread habitats and are fairly adaptable to human uses of the land. The deer herd is more sensitive to human encroachment, and is especially vulnerable to loss of habitat and disruption of migration routes through building and development efforts.

The Rail Road Flat herd migrates from its winter range in Calaveras County to summer range in Alpine County. The herd derives its name from the community of the same name situated in the middle of the winter range, and is predominantly made up of California mule deer (*odocoileus hemionus californicus*). In the winter range, the herd may mingle with the resident black-tailed deer; in the summer range, with a few Rocky Mountain mule deer from the Carson River herd.

There are distinct activities that take place in certain areas during the annual migration. The herd's winter range land, migration routes, fall and spring holding areas, and fawning areas are all

within Calaveras County (see Significant Wildlife Habitats map, Page V-7). Most of these habitats with the exception of the winter range are located in the higher elevations of Calaveras County on either U.S. Forest Service lands or privately held timber producing land. Summer range is outside of the county in the higher elevations of Alpine and Tuolumne counties.

The herd can adapt to most habitat types, but optimum habitat has food and cover types arranged in close proximity. The winter range is considered to be a key factor in the health and size of the migrating deer herd.

The Rail Road Flat herd has a total range of 520 square miles. According to data in the *Land & Resource Management Plan: Stanislaus National Forest* (1991), 97 percent of the herd's summer range is located in the Stanislaus National Forest, with the balance on private land. Its intermediate range is evenly divided between national forest and private lands. Twenty percent of the critical winter range is in the forest, with 80 percent on private lands. Slightly different figures occur in earlier reports on the herd (Wernette, 1981).

A detailed study by Department of Fish and Game in 1973, estimated the size of the herd at that time as being between 6,000 and 9,000, with the population trend in decline (as has been the case since at least the 1960s). The study found both the condition of the herd and of their range to be poor. Reasons given for the poor condition and downward population trends were: poor quality of summer range, overuse of available forage, plant succession and fire suppression, habitat deterioration, human encroachment, and drought. These issues continue to be of concern today. Current Department of Fish and Game policy regarding deer herds is to restore and maintain critical habitats.

Because of the population decline in the Rail Road Flat deer herd, only grazing and timber harvesting are considered compatible land uses. In certain cases, these uses can actually increase the quality of the habitats if overgrazing or removal of large stands of forest are minimized.

The deer herd's wintering range is located in the central portion of the county near the towns of West Point, Rail Road Flat, and Sheep Ranch. If the wintering range is preserved, the growth of these communities to the east is limited. As a compromise, the county has defined the Rail Road Flat deer wintering range as protected and unprotected areas. Unprotected areas of the habitat are located along Highway 4 and a wide zone east of the road between Sheep Ranch and West Point. (see Significant Wildlife Habitats map, Page V-7)

Turkeys

Turkeys (*meleagris gallopavo*) are a non-native species in California, but were introduced to the state and to parts of the western United States in attempts to establish viable sport hunting populations. They were introduced into Calaveras County for this reason in the mid to late 1960s. Small flocks exist over much of the county, but the major population center is in the Bear and Hogback Mountains, west of San Andreas, in the southwestern region of the county. As of 1980, California Department of Fish and Game estimated some three to four flocks of 20 to 30 birds inhabiting this area. As an introduced game bird, turkeys have a lower value as a natural resource than indigenous species.

Extensive land development is considered to be the major activity likely to significantly alter the turkey population or abundance in their range. Human habitation and intensive agriculture also have potentially negative impacts on turkey populations. Grazing and timber harvesting are generally compatible land uses in the turkey range.

Fish

Calaveras County is traversed by three major rivers and numerous streams which provide abundant natural habitat for fish. In addition, artificial lake fishery habitat has been added in the form of 10 reservoirs (see Water Resources section). Known fish species identified by the U.S. Forest Service and others include rainbow trout, golden trout, brook trout, brown trout, and several warm water species.

Winter run Chinook salmon (*Oncorhynchus tshawytscha*), a federally listed threatened and state-listed endangered species, are known to utilize the Calaveras River below New Hogan Reservoir. The population is small and somewhat sporadic, only penetrating this reach of the river during favorable stream conditions.

GENERAL PLAN RECOMMENDATIONS

Goal V-1: Preserve and enhance the County's significant wildlife and botanical habitats.

Policy V-1A: Review proposed development for potential impacts to significant wildlife and botanical habitats.

Implementation Measure V-1A-1: Allow a maximum density of one dwelling unit per 40 acres on lands within the following significant protected wildlife and botanical habitats outside of Community Centers, Residential Centers, and Community or Special Plan Areas:

Railroad Flat Deer Protected Areas
Bald Eagle Wintering Area
Golden Eagle Nesting Area
Big Trees State Park
UOP Research Area

Implementation Measure V-1A-2: When reviewing discretionary permits, require a vegetative and/or wildlife assessment and appropriate mitigation measures for those areas identified as potentially containing sensitive species as identified in Tables V-1 and V-2.

Implementation Measure V-1A-3: Utilize the Environmental Protection zone of the County Zoning Code to regulate development standards within significant protected wildlife and botanical habitats.

Implementation Measure V-1A-4: Actively solicit assistance from federal and state agencies and non-profit organizations with expertise in habitat management to work cooperatively with public and private property owners located in wildlife and botanical habitats toward the appropriate management of their lands.

Implementation Measure V-1A-5 : Encourage the establishment of protective easements in wildlife and botanical habitats under the Open Space Easement Act of 1974 (Government Code section 51070 *et seq.*).

Goal V-2 : Protect streams, rivers and lakes from excessive sedimentation due to development and grading.

Policy V-2A: Review proposed development projects for potential effects on nearby and adjacent streams, rivers and lakes.

Implementation Measure V-2A-1: Require appropriate grading and drainage plans for proposed development projects.

Implementation Measure V-2A-2: Require erosion control measures for all grading and earth moving activities which may contribute to significant sedimentation.

Implementation Measure V-2A-3: Develop a County grading ordinance.

Implementation Measure V-2A-4: Investigate utilizing the services of the Soil Conservation Service.

Goal V-3 : Protect and preserve riparian habitat along streams and rivers in the County.

Policy V-3A: Review proposed development projects for potential impacts to riparian areas.

Implementation Measure V-3A-1: Require that any 100-year flood plains be shown on all plot plans and subdivision maps for areas subject to inundation.

Implementation Measure V-3A-2: Amend the County Zoning and Subdivision Codes to protect riparian habitat.

3.0 Cultural, Historic and Scenic Resources

3.1 Areas of Archaeological Importance

Archaeology is the scientific study of the remains of human life and culture in past ages. Calaveras County is categorized into three levels of archaeological sensitivity, as shown on the Archaeological Sensitivity map, Page V-13. The Map serves as a guide in determining which future subdivisions and other development projects may impact cultural resources. Sensitivity is based on the probability of finding significant archaeological sites.

The sources of archaeological sites and artifacts in Calaveras County are Miwok and Washo settlements. The Washo utilized the eastern, high elevation pine forests of the County in late summer, primarily for hunting. The Miwok utilized the lower elevations of the County. Their activities were strongly oriented toward rivers and streams.

- **High Sensitivity Zones** are the courses of streams and major tributaries. These areas probably contain many sites, including large villages with evidence of long-term occupation.
- **Moderate Sensitivity Zones** are tributary streams, springs and small valleys. These areas were probably used intermittently, making the discovery of major population centers unlikely.
- **Low Sensitivity Zones** cover the remaining areas of the County. Although some sites probably exist in these areas, the discovery of significant sites is unlikely.

GENERAL PLAN RECOMMENDATIONS

Goal V-4: Preserve or allow recovery of the County's significant archeological sites and artifacts.

Policy V-4A: Review proposed development projects to be located within areas identified as high and moderate potential archaeological sensitivity for potential impacts to archaeological resources.

Implementation Measure V-4A-1: In areas without prior archaeological study or subsurface disturbance, require that an "archaeological resource assessment" be conducted prior to grading or any surface disturbance located within high and moderate areas of archeological sensitivity.

Implementation Measure V-4A-2: Condition development projects to preserve or allow recovery of any significant on-site archaeological resources in the event archaeological resources are encountered during development or construction, utilizing the guidelines as set forth in Public Resources Code Section 21083.2.

3.2 Significant Cultural and Historical Areas

Much of Calaveras County was initially developed during the Gold Rush era. Many representative buildings are still standing and in use at the present time. Preservation of the character of the Mother Lode historic structures has received much support and activity in recent years. Historic preservation is considered to be a major priority in many of the County's communities. The historic character of many communities attract visitors from outside the area, providing a strong base for the tourist/visitor economy.

GENERAL PLAN RECOMMENDATIONS

Goal V-5: Preserve the existing historic character of the County.

Policy V-5A: Encourage property owners to preserve and maintain structures of historic character.

Implementation Measure V-5A-1: Promote the use of the State of California Historic Building Code to protect historic sites in the County.

Implementation Measure V-5A-2: Encourage owners of eligible historic properties to apply for State and federal registration of these sites and to participate in tax incentive programs for historic restoration.

Policy V-5B: Encourage coordination with federal, State, and local organizations, to preserve, restore, and enhance unique historic sites.

Implementation Measure V-5B-1: Identify, assist, and support interested persons or groups of the availability of federal, State, or local funding programs for historic preservation.

Implementation Measure V-5B-2: Consider, when requested by local groups, the formation of historic districts.

3.3 Areas of Outstanding Scenic Value

Calaveras County is considered by many to be a desirable place to live for its scenic qualities. There are significant topographic variations and several resources which contribute to this scenic quality. The primary attributes include the reservoirs, rivers and streams, rolling hills with oak habitat, ridgelines, and the forests. Views and access to these natural features help to reinforce the rural character of the County.

Since most of the County consists of these features, specific areas are not identified on a map. These scenic resources are aesthetic opportunities which should be considered when reviewing new development.

GENERAL PLAN RECOMMENDATIONS

Goal V-6: To preserve and protect the scenic qualities of the County.

Policy V-6A: Proposed new development shall consider the scenic qualities of the natural resources in the design of the project.

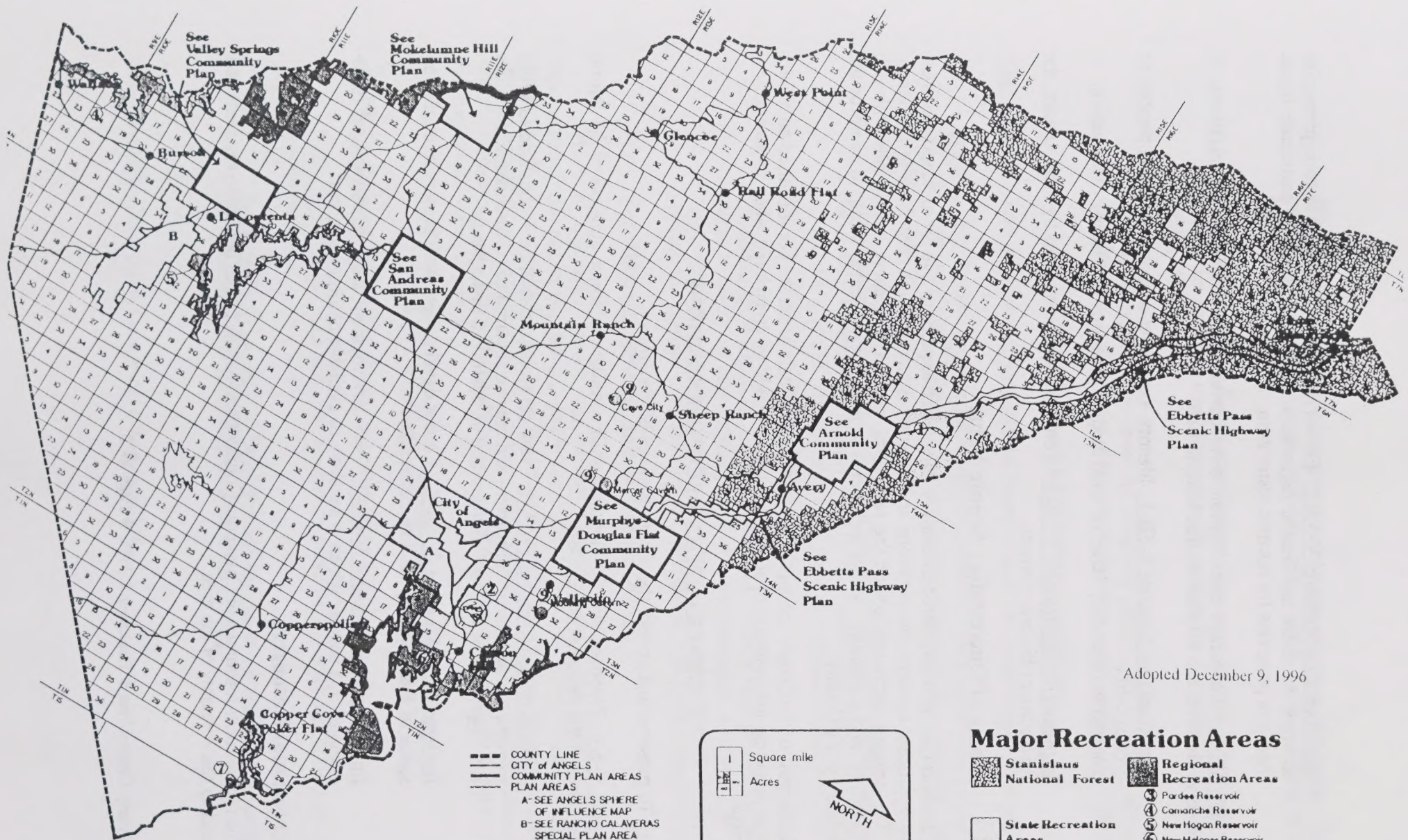
Implementation Measure V-6A-1: New development shall be encouraged to avoid extreme topographic modification, and may be required to restore natural contours and vegetation of the land after grading or other land disturbances.

Implementation Measure V-6A-2: Cluster development with preservation of open space of scenic quality shall be encouraged.

Implementation Measure V-6A-3: New development shall be encouraged to be designed in a manner which is sensitive to available natural resources.

4.0 Recreational Resources

The recreational resources of Calaveras County provide substantial benefit to residents and visitors, and to the economy of the area.



Adopted December 9, 1996

Major Recreation Areas

- | | |
|--|---|
| <p> Stanislaus National Forest</p> <p> State Recreation Areas</p> <p>① Big Trees State Park</p> <p>② Frogtown Fair Grounds</p> | <p> Regional Recreation Areas</p> <p>③ Pardee Reservoir</p> <p>④ Camanche Reservoir</p> <p>⑤ New Hogan Reservoir</p> <p>⑥ New Melones Reservoir</p> <p>⑦ Lake Tulloch</p> <p>⑧ White Water River</p> <p>⑨ Major Caves</p> |
|--|---|

Local Recreation Areas (not shown)

AMENDMENTS
PART 1 General Plan Revision 10/15/96

CALAVERAS COUNTY GENERAL PLAN REVISION 1985

4.1 Parks and Reserves

There are many publicly owned natural resource areas located within the County, which are discussed below. In addition, the University of the Pacific (located in Stockton) owns a 40-acre botanical research area in the County.

The University of the Pacific research area is located northeast of Mountain Ranch. It consists of foothill woodland and yellow pine forest communities, and includes a permanent creek. It is managed as a research natural area by the university for the retention and restoration of the natural plant communities.

4.2 Federal Lands with Recreation Opportunities

As shown on Table V-3, approximately 20 percent of the land area of Calaveras County is administered by either the U. S. Forest Service or the U. S. Department of Interior's Bureau of Land Management (BLM).

The Stanislaus National Forest, managed by the U. S. Forest Service, serves multiple purposes and is increasingly used and managed for recreation. Stanislaus National Forest (over one-million acres) includes parts of Tuolumne, Alpine and Calaveras Counties. About 11 percent of the total acreage of Calaveras County the northeastern portion lies within the forest. Portions of the Mokelumne Wilderness and the Carson-Iceberg Wilderness (which are part of the Stanislaus National Forest), lie within Calaveras County. State Highway 4 provides access to the Ebbetts Pass and Sierra Crest for recreational activities. The National Forest not only serves as a recreational resource for County residents, but also attracts visitors from all of California as well as other states.

TABLE V-3
CALAVERAS COUNTY RECREATION ACREAGE

Recreation Area	Acreage	Percent of Total County Acreage
Stanislaus National Forest	85,000	13%
Bureau of Land Management (BLM)	39,000	6%
State Parks	5,000	1%
Reservoirs	35,000	5%
Total	165,000	25%

The Mokelumne Wilderness is located mostly in Amador and Alpine counties with a small section found in the northernmost corner of Calaveras County above Salt Springs Reservoir along the North Fork of the Mokelumne River.

BLM lands also serve multiple purposes, including recreation. BLM lands in the County are essentially undeveloped with few if any recreation facilities.

4.3 State Recreation Areas

In 1852, giant sequoia groves were discovered and visitors came to Calaveras County to view the majestic trees. Today, Calaveras Big Trees State Park is a major attraction to visitors. The Park contains 5,436 acres which include two sequoia groves and numerous recreation facilities.

Calaveras Big Trees State Park is bisected by the North Fork Stanislaus River, and straddles the Calaveras-Tuolumne County line, with about 40 percent of the 6,000 acres located in Calaveras County. The two most significant natural features are the North Grove (located in Calaveras County) and South Groves (located in Tuolumne County) of Sierra Redwood (*sequoiadendron giganteum*), commonly known as the giant sequoia. The tallest tree in the park is over 300 feet and some of the older trees are an estimated 3,000 years old.

Frogtown is the site of the annual Calaveras County Fair and Jumping Frog Jubilee, and is owned by the State of California. The fairgrounds are located on a 68-acre site, approximately one mile south of Angels Camp. In addition to the annual Frog Jump, numerous public activities are held at the site throughout the year.

4.4 Reservoir Recreation Areas

Water-oriented recreational opportunities are provided by Calaveras County's six major reservoirs: Pardee, Camanche, New Hogan, Lake Tulloch, New Melones and Salt Springs.

- Pardee Reservoir is owned by the East Bay Municipal Utility District. Because it is a source of domestic drinking water, recreational use of the area is restricted to minimal activities such as fishing, camping and picnicking.
- Camanche Reservoir is also owned by the East Bay Municipal Utility District. Swimming and boating are permitted at the Reservoir, and the area offers a variety of overnight accommodations and recreational activities.
- New Hogan Reservoir is owned and managed by the United States Bureau of Reclamation. Although less developed than Camanche in terms of overnight facilities and services, New Hogan receives substantial use, including boating, swimming, fishing, picnicking and camping.
- Lake Tulloch is managed by the Oakdale and South San Joaquin Irrigation Districts for irrigation and domestic water purposes. The Lake is also used for recreation, with boating and swimming permitted.
- New Melones Reservoir is owned and managed by the Bureau of Reclamation. New Melones receives substantial recreational use, including boating, swimming, fishing, and camping. the recreational facilities agreed to be constructed by the Bureau have never been completed.
- Salt Springs Reservoir is owned by Pacific Gas and Electric for the purpose of hydroelectric power. Fishing, boating, and swimming are permitted.

Wild and Scenic Rivers

Currently, none of Calaveras County's rivers are designated under either the state or federal Wild and Scenic River programs. However, there has been and continues to be interest and support for gaining official designation for portions of the rivers.

Unsuccessful attempts were made in 1974 and 1976 to place stretches of the Stanislaus River under the protection of the California Wild and Scenic Rivers System; in 1979, unsuccessful legislation was proposed to designate segments of the Stanislaus as part of the National Wild and Scenic River System. When New Melones Lake was approved for operation at full capacity and filled in 1982, the most popular 9½ mile white-water stretch of the Stanislaus was inundated. During continued years of drought the reservoir lowers and, as a result, this white-water stretch is accessible again.

As part of the *Land and Resource Management Plan: Stanislaus National Forest* (1991), a Wild and Scenic River Study of the forest's rivers was conducted. The study concluded that the North Fork of the Mokelumne, and the North and Middle Forks of the Stanislaus are eligible for the classification of "wild;" part of the Middle Fork of the Stanislaus as "scenic;" and portions of the North Fork of the Stanislaus as "recreational." Congress makes the final determination on Wild and Scenic River designations. At this time, the Forest Service manages the areas as if they were officially designated, even though Congress has yet to act upon the study's recommendation. If and when the designations are made official, the National Forest Service will prepare detailed management plans for those sections of the rivers affected.

Approximately 30 acres near the Highway 49 bridge over the Mokelumne River, a popular white-water stretch, is being purchased by the State for a white-water recreational area.

The Stanislaus and Mokelumne Rivers attract local and regional users for white water rafting and kayaking. The rivers are used both by organized commercial tours and by individuals on rafts, innertubes and canoes. Other creeks and tributaries in the County are used in similar fashion.

Caves

Of all counties in California, Calaveras has the most outstanding limestone caves. The County's three major caves are Mercer Caverns near Murphys, Moaning Cave near Vallecito, and California Caverns at Cave City near Mountain Ranch. Mercer Caverns opened to the public in 1887. It contains some of the rarest calcite formations. Moaning Cave has a large chamber accessible from a 100-foot spiral staircase. It also contained the oldest human remains ever found in the Northern Hemisphere. California Caverns, the oldest commercial cave in Calaveras County, has numerous chambers and passageways and lakes up to 200 feet deep.

Trails

Trail enthusiasts in Calaveras County formed the Mokelumne River Trail Council in 1989 to secure a permanent, public trail access along the North Fork of the Mokelumne River. Later, the concept was expanded to a multi-use trail connecting the Pacific Ocean at the San Francisco Bay to the Sierra Nevada Range just south of Lake Tahoe. The project is named the Mokelumne Coast to Crest Trail. The conceptual route for the trail generally follows the Mokelumne Aqueduct and the North Fork of the Mokelumne River in Calaveras County.

4.5 Local Recreation Areas

Given its predominantly natural character, much of the County can be considered a recreational resource for residents. Two areas particularly favored for local recreation use are waterways and local parks. Typically found near or within townsites, local parks range widely in terms of the facilities provided. Normally, they include ball fields, playgrounds, picnic sites and grassy areas.

GENERAL PLAN RECOMMENDATIONS

Goal V-7 : Conserve national, state and regional recreation areas in the County.

Policy V-7A: Support public and private entities in their efforts to maintain and improve recreation facilities in the County.

Implementation Measure V-7A-1: Encourage support of the construction of the Mokelumne Coast to Crest Trail.

Implementation Measure V-7A-2: Support the construction of the USFS Wild River Campground at the Stanislaus River, near Sourgrass.

Policy V-7B: Limit the burden placed on local government from the development of national, state and regional recreation areas.

Implementation Measure V-7B-1: Require owners and operators of national, state and regional recreation areas to provide facilities and services or to pay for any facilities and services provided by the County.

Implementation Measure V-7B-2: Lobby for federal and state legislation to require recreation areas to fund construction and maintenance of local facilities supporting regional recreation resources.

Goal V-8: Provide adequate local parks and recreation facilities to serve the County's population.

Policy V-8A: Encourage community development and operation of local parks and recreation facilities, especially within and near the County's population centers.

Implementation Measure V-8A-1: Actively solicit technical assistance and funding from federal and state sources for the development, maintenance and operation of local parks and recreation facilities.

Implementation Measure V-8A-2: Support the efforts of communities which demonstrate the ability to form and properly operate a Recreation and Park District.

Implementation Measure V-8A-3: Methods of obtaining local parks for public use include:

- contributions from individual owners and private organizations
- open space dedications of areas being developed
- purchase
- requirement of in-lieu park fee for future purchase

Policy V-8B: Review new land subdivisions and other development projects to assure that adequate land is provided for local parks and recreation facilities.

Implementation Measure V-8B-1: Require dedication of park land and/or payment of fees for the development and operation of local parks.

Implementation Measure V-8B-2: Strive to provide 2 1/2 acres of new local park land for every 1,000 resident population.

Goal V-9: Preserve portions of the County's rivers and streams as a local recreation resource.

Policy V-9A: Balance water resources development with the preservation of streams and rivers in their natural state.

Implementation Measure V-9A-1: Take part in proceedings at the state and federal level which concern water resources development within the County.

Policy V-9B: Protect public access to streams and rivers.

Implementation Measure V-9B-1: Require new subdivisions, consistent with the Subdivision Map Act, to provide public access to water resources for recreation purposes.

NOISE ELEMENT

1.0 Introduction

The presence or absence of noise in the environment can greatly affect quality of life. Given its rural character, Calaveras County affords a relatively quiet environment, compared to urbanized areas of California. This factor is one of many which attracts visitors and residents to the County.

The Noise Element examines noise sources in the County with a view toward identifying and appraising the potential for noise problems. The element addresses noise which affects the community at large, rather than noise associated with particular working conditions. Workplace noise affecting individuals is regulated by state and federal law, and is not covered by the General Plan. Similarly, the Noise Element does not address isolated noise problems, such as barking dogs or loud stereos. Private remedies are available to individuals affected by those situations.

Because the Noise Element must quantify and analyze noise conditions, it is one of the most technical parts of the General Plan. Technical terms used throughout the element are explained in the Noise Element Appendix.

To form the basis for the noise element, the County conducted an assessment of noise conditions prepared in accordance with the Noise Element Guidelines of the California Department of Health Services and the Governor's Office of Planning and Research. That assessment produced a technical report included in the *Calaveras County General Plan Update Background Report* (Crawford, Multari, and Starr, 1993). The existing and future noise environments were prepared by Brown- Buntin Associates.

Noise modeling techniques, noise measurements and use of existing noise measurement data were used to develop generalized day-night average sound level (L_{dn}) noise contours for the major roadways, railroad and fixed noise sources in Calaveras County for existing and future conditions. Noise modeling techniques use source-specific data including average levels of activity, hours of operation, seasonal fluctuations, and average levels of noise from source operations. The modeling methods used in this closely follow recommendations made by the State Office of Noise Control, and were supplemented where appropriate by field-measured noise level data to account for local conditions. The noise exposure contours are based upon annual average conditions. Because local topography, vegetation, or intervening structures may significantly affect noise exposure at a particular location, the noise contours presented should not be considered site-specific.

The following summary presents the major findings of the assessment, organized according to noise sources (those that produce noise) and noise sensitive uses (those that are subjectively sensitive to noise). The results of the assessment are also shown graphically in the diagrams included in this element.

1.1 Legal Authority

Section 65302 (f) of the California Government Code requires that a Noise Element be prepared as a part of the General Plan. This Stat law requires that a jurisdiction's Noise Element identify and work toward mitigation of noise problems in the community. This Noise Element

analyzes and quantifies, to the extent practical as determined by the legislative body, current and projected noise levels of highways and major local roads, the railroad corridor, the County airport, and fixed noise sources.

1.2 Relationship to other General Plan Elements

The primary function of the Noise Element is to incorporate noise considerations into the land use decision making process. Proposed development is assessed according to the data presented here, to determine its noise compatibility with surrounding land uses. The Noise Element is integrated with the other elements of the General Plan and with the County Airport Land Use Plan, to create a pattern for land use and transportation planning which minimizes public's exposure to excessive noise.

The Noise Element is most closely related to the Land Use, Housing, Circulation, and Open Space Elements. The major objective of the Noise Element is to provide guidelines to achieve noise land use compatibility. The Land Use and Noise Elements, therefore, are related closely. By identifying noise sensitive land uses and establishing compatibility guidelines for land use and noise, the Noise Element will influence the general distribution, location and intensity of future land use. Effective land use planning can reduce noise problems.

Residential areas are one of the noise-sensitive land uses. Therefore, the Housing Element is directly affected by the Noise Element. The implementation of noise compatibility guidelines can reduce noise impacts in residential locations. In addition, proper noise mitigation measures during housing construction can guard against adverse noise impact.

2.0 Major Noise Sources

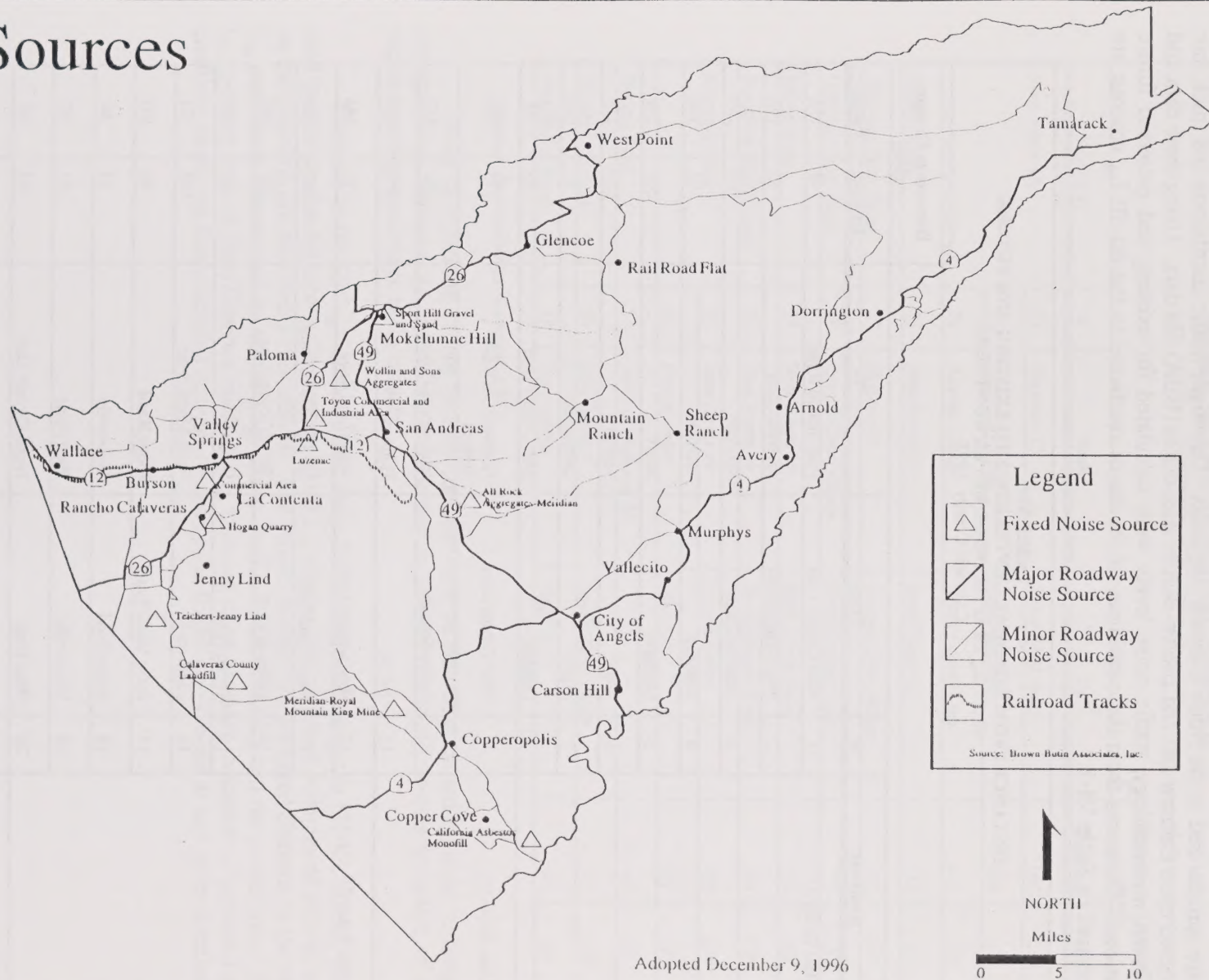
Existing and projected major sources of noise in Calaveras County are roadways, railways, the County Airport, mining and other industry, the County Animal Shelter, and facilities used for special events. The general locations of these sources are shown on Noise Sources map, Page VI-3.

2.1 Traffic Noise

The state highways and county roads identified as major sources of noise and are listed in Table VI-1. It is recognized that noise levels will increase along these major routes with any future development within the County.

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop L_{dn} contours for all highways and major roadways in Calaveras County. A more detailed explanation of the model is contained in the Noise Element Appendix.

Noise Sources



Traffic data representing annual average traffic volumes for existing (1990) and projected future (2010) conditions were obtained from TJKM Transportation Consultants and Caltrans. These data are summarized in the Noise Element Appendix. Day/night traffic distribution and truck mix were based upon Caltrans data and Brown-Buntin Associates (BBA) file data. Using these data and the FHWA methodology, traffic noise levels were calculated for existing and projected future conditions. Distances from the centerlines of the major roadways to the 60 dB L_{dn} contour are summarized in Table VI-1.

TABLE VI-1
DISTANCE FROM ROADWAY CENTERLINES TO EXISTING AND FUTURE
60 dB L_{dn} TRAFFIC NOISE LEVEL CONTOURS
 Calaveras County, 1993

Roadway	#	From	To	Distance to Contour (feet)	
				Existing	Future
State Route 4	1	West County Line	Pool Station Road	98	178
	2	Pool Station Road	Angeles Camp	83	102
	3	Angeles Camp	Vallecito	169	259
	4	Vallecito	Murphys	191	306
	5	Murphys	Avery	201	298
	6	Avery	Arnold	159	239
	7	Arnold	Dorrington	97	149
	8	Dorrington	East County Line	69	99
State Route 12	9	West County Line	Highway 26/Valley Springs	175	256
	10	Valley Springs	Highway 26/Tovon	201	263
	11	Tovon	Highway 49	177	233
State Route 26	12	West County Line	Jenny Lind Road	119	184
	13	Jenny Lind Road	SR 12/Valley Springs	161	208
	14	Valley Springs	SR 12/Tovon Area	201	263
	15	Tovon Area	Highway 49	65	92
	16	Highway 49	Jesus Maria Road	103	121
	17	Jesus Maria Road	Ridge Road	86	103
	18	Ridge Road	Wilseyville	65	80
	19	Wilseyville	West Point	51	60
	20	West Point	North County Line	67	96
State Route 49	21	North County Line	Mokelumne Hill	168	249
	22	Mokelumne Hill	Highway 12	166	233

TABLE VI-1
DISTANCE FROM ROADWAY CENTERLINES TO EXISTING AND FUTURE
60 dB L_{dn} TRAFFIC NOISE LEVEL CONTOURS
 Calaveras County, 1993

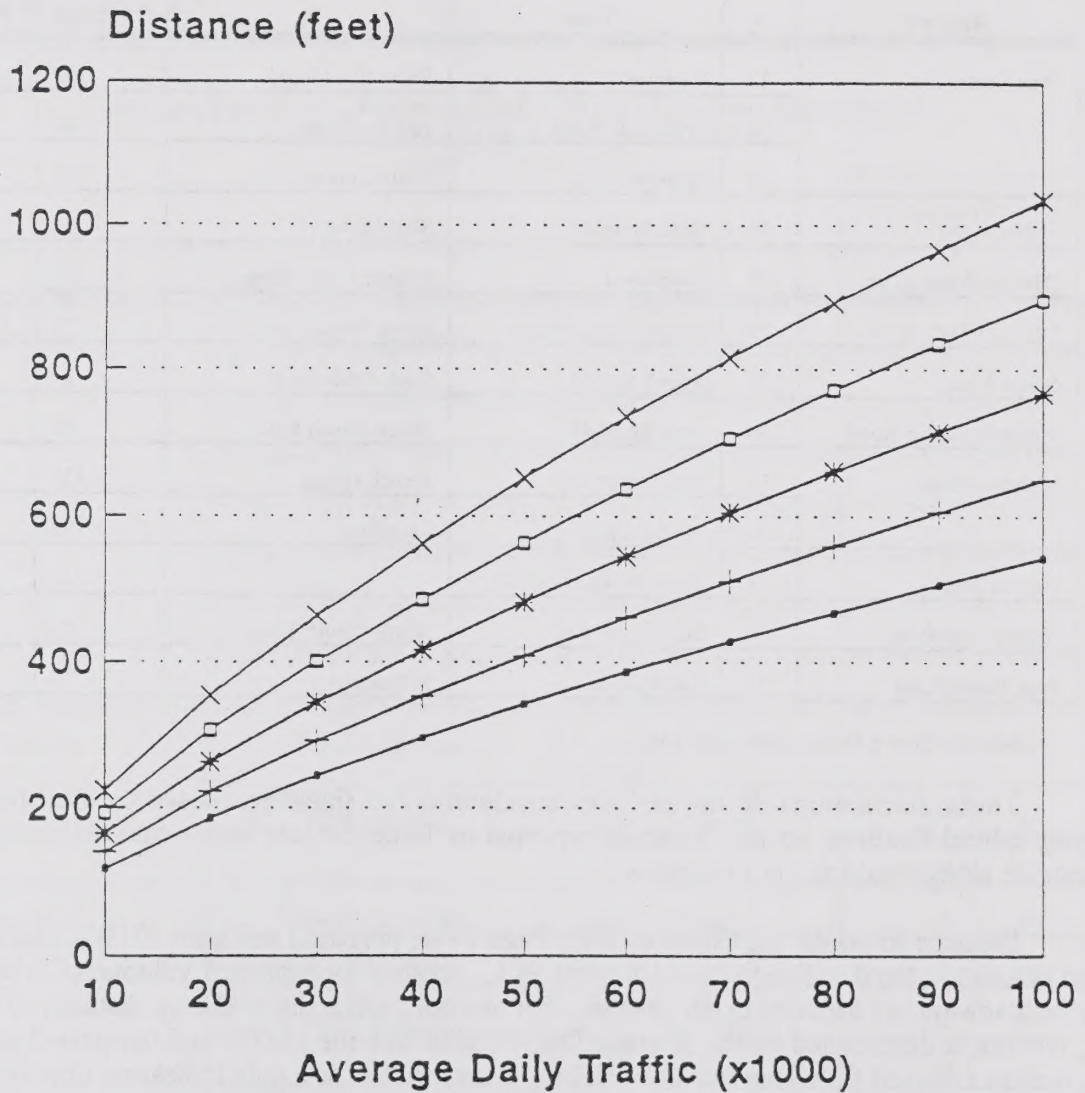
Roadway	#	From	To	Distance to Contour (feet)	
				Existing	Future
State Route 49	23	Highway 12	Fricot Point Road	163	210
	24	Fricot City Road	Angeles Camp	184	228
	25	Angeles Camp	South County Line	103	150
Burson Road	26	State Route 26	State Route 12	43	49
O'Byrnes Ferry Road	27	Highway 4	Copper Cove Village	92	177
O'Byrnes Ferry Road	28	Copper Cove Village	South County Line	71	139
Milton Road	29	State Route 26	Rock Creek Road	52	68
Mountain Ranch Road	30	State Route 49	Sheep Ranch Road	96	126
Murphys Grade	31	State Route 49	French Gulch	126	149
	32	French Gulch	Murphys	109	130
Paloma Road	33	North of Highway 26		46	66
Parrots Ferry Road	34	State Route 4	South County Line	71	118
Pool Station Road	35	San Andreas	Highway 4	43	66

Source: Brown-Buntin Associates, 1993.

These calculations do not include consideration of shielding caused by local buildings or topographical features, so the distances reported in Table 2-1 are worst-case estimates of noise exposure along roadways in the county.

Distance to 60 dB L_{dn} Contour chart, Page IV-6, prepared using the FHWA Model, may be used to estimate the distance to the existing 60 dB L_{dn} contour for projected volumes of arterial traffic on the roadways not included in this analysis. For arterial traffic, the predicted distance to the 60 dB L_{dn} contour is determined by the Average Daily Traffic Volume (ADT) and the posted speed limit. L_{dn} contours derived from Distance to 60 dB L_{dn} Contour chart are only indicators of potential noise conflicts, requiring more detailed analysis to determine traffic noise levels at any given location.

Distance to 60 dB L_{dn} Contour Arterial Traffic



Posted Speed

—•— 35 mph —+— 40 mph —*— 45 mph —□— 50 mph —x— 55 mph

FHWA RD-77-108

Topography in Calaveras County varies considerably, sometimes alternating from flat to mountainous along relatively short roadway segments. Due to the size and topographic complexity of Calaveras County, it was not possible to evaluate the effects of topography on traffic noise at all locations in the County for inclusion in the General Plan. Therefore the numbers presented in Table VI-1 should be considered estimates of traffic noise exposure.

Table VI-2 has been prepared to serve as a guide when applying the traffic noise exposure contour information presented in this section to areas with varying topography. The table is used by adding the correction factor to the noise level predicted at a given distance. It should be noted that the adjustment factors presented in Table VI-1 are intended to provide conservative (worst-case) results, therefore complex situations where the potential for significant noise impact may exist, should be evaluated in detail.

TABLE VI-2			
TRAFFIC NOISE ADJUSTMENTS FOR VARIOUS TOPOGRAPHIC CONDITIONS			
Topographic Situation	Distance from Center of Roadway (Feet)		
	<200	200 - 400	>400
Hillside overlooks roadway	-0-	+1 dB	+3 dB
Roadway Elevated (>15')	-5 dB	-2 dB	-0-
Roadway in cut/below embankment	-5 dB	-5 dB	-5 dB

Source: Brown-Buntin Associates, 1993.

2.2 Railroad Noise

Railroad activity in Calaveras County is limited to future operations on the San Andreas branch of the Southern Pacific Railroad, the Kentucky House Branch. Before closure of the Calaveras Cement Plant in San Andreas (1984), the freight train operated three times per week, round trip, from Lodi to the cement facility.

Southern Pacific Railroad Company has currently filed a request for abandonment of the branch with the Interstate Commerce Commission (ICC). Calaveras County has filed a request to the ICC for a public use condition. The future of any railroad operations in Calaveras County are currently unknown, but if resumed in the near future, are likely to remain as freight transportation.

Due to the lack of operational data for this track segment, the distances to the railroad L_{dn} contours were developed as a function of the number of hypothetical daily operations. The results of these calculations are provided in Table VI-3. The Table VI-3 data should be considered conservative, in that existing shielding of railroad noise by intervening topography and structures is not included in the calculations.

The noise levels provided in Table VI-3 should be increased by 3 dB where warning horns are used. The railroad noise exposure will differ from these values where the tracks are significantly elevated or shielded relative to the receiver location. The approximate location of the 60 dB L_{dn} railroad noise contour, assuming 2 daily railroad operations, is about 100 feet from railroad tracks.

TABLE VI-3 APPROXIMATE DISTANCE TO RAILROAD NOISE CONTOURS AS A FUNCTION OF DAILY ACTIVITY Calaveras County, 1993			
Daily Trains	L_{dn} , dB, 100 Feet From Tracks	Distance to 60 dB L_{dn} contour (feet)	Distance to 65 dB L_{dn} contour (feet)
1	57	63	29
2	60	100	46
3	62	136	63
4	63	159	77
5	64	185	86
10	67	293	136
Calculations assume average railroad sound exposure level of 100 dB at 100 feet from the tracks, a 4.5 dB decrease in noise levels per each doubling of distance from the noise source, and that the operations are randomly distributed throughout the day and nighttime hours.			

Source: Brown-Buntin Associates, 1993.

2.3 Airport Noise

The Calaveras County Airport (Maury Rasmussen Field) began operation in December of 1981. Information on noise resulting from the aircraft operations at the airport is based on the County of Calaveras Airport Final Environmental Impact Report, 1982. Given that the area adjacent to the airport is generally undeveloped, the noise resulting from aircraft operations has very little impact on current land uses. Land use in the vicinity of the Calaveras County Airport is guided by both the County Airport Land Use Plan (ALUP), which was incorporated into the General Plan as the Airport Special Plan, and is included in the Noise Element. For additional information regarding airport operations and noise generation, refer to the Airport Special Plan.

The boundaries of the Airport Special Plan are a composite of the critical impact areas, which include the outer limits of the Federal Aviation Regulation Part 77 Horizontal Surface and the 55 CNEL contour line. The goal of the policies and implementation measures regarding noise is to minimize the public's exposure to excessive aircraft noise, thus protecting the Calaveras County Airport from future annoyance complaints.

2.4 Fixed Noise Sources

Noise production is a result of many industrial processes, even with use of the best available noise control technology. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations administered by the Occupational Safety and Health Administration (OSHA), but exterior noise levels may approach the limits of locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise affecting adjacent sensitive land uses.

From a land use planning perspective, fixed-source noise control issues have two goals: to prevent the introduction of new noise-producing uses in noise-sensitive areas, and to prevent encroachment of noise sensitive uses upon existing noise-producing facilities. The first goal can be achieved by applying noise performance standards to proposed new noise-producing uses. The

second goal can be met by requiring that new noise-sensitive uses in proximity to noise-producing facilities include mitigation measures to ensure compliance with noise performance standards.

3.0 Noise Sensitive Uses

Land uses on which noise may have a significant impact include residences, schools, conservation areas, and hospitals or other care facilities.

GENERAL PLAN RECOMMENDATIONS

Goal VI-1: Improve noise compatibility between new and existing land uses.

Policy VI-1A: Protect existing noise sensitive uses from new non-residential sources of excessive noise.

Implementation Measure VI-1A-1: Consider the potential noise impacts of non-residential land use proposals on adjacent residential and other noise sensitive land uses to the following noise levels as measured at the property line of the noise sensitive land use:

Noise Sensitive Land Use	Maximum Noise Level
Single Family Residential	60 Ldn
Multifamily Residential	65
Schools, Hospitals	70

Implementation Measure VI-1A-2: Site specific noise analyses should be performed where major noise sources are proposed to be located near noise sensitive land uses.

Implementation Measure VI-1A-3: Use setbacks, landscaping, earth berms and other effective measures to provide buffers and barriers between noise generators and surrounding areas.

Policy VI-1B: Restrict the development of noise sensitive land uses near identified major noise sources.

Implementation Measure VI-1B-1: Site specific noise analyses should be performed where noise sensitive land uses are proposed in proximity to major noise sources.

Implementation Measure VI-1B-2: Utilize Noise Contours in reviewing land use proposals.

Implementation Measure VI-1B-3: Require developers to use setbacks, landscaping, earth berms and other effective measures to provide buffers and barriers between the noise sensitive land uses and the existing major noise sources.

Goal VI-2: Minimize noise disturbance from ground transportation facilities

Policy VI-2A: Consider potential noise impacts in locating new residential subdivisions near highways, major county roads and rail lines.

Implementation Measure VI-2A-1: Utilize Noise Contours and noise generation projections in evaluating new residential subdivisions.

Implementation Measure VI-2A-2: Impose the provisions of the California Noise Insulation Standards and the Uniform Building Code when locating future single family residential subdivisions within the 60 dB Ldn contour.

Goal VI-3: Minimize noise disturbance from all public and private air facilities in the county.

Implementation Measure VI-3A-1: Use the County Airport Land Use Plan to guide land use decisions within the ALUP boundary.

Implementation Measure VI-3A-2 : Condition airfield use permits so as to reduce noise impacts to acceptable levels.

SAFETY ELEMENT

1.0 Introduction

In accordance with the State General Plan Guidelines, the safety element includes maps of known hazards including seismic and other geologic hazards, and other hazards described below. It addresses potential hazards from the following sources: ground failure and other geologic hazards; seismic activity; fire; flooding; hazardous materials; and airport operations. General public protection issues are also addressed.

1.1 Legal Authority

As directed by the State legislature, this element of the General Plan is intended to further "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides, subsidence and other geologic hazards known to the legislative body; flooding; and wild land and urban fires (Government Code Section 65302(g))."

This element identifies the hazards that Calaveras County must consider when making land use decisions. Based on analysis of local hazards and an evaluation of their associated risks to life and property, this element recognizes a degree of acceptable risk and provides the basis for planning and coordination of risk management with State and federal agencies in order to ensure that public projects, plans and programs of other government agencies reflect public safety issues for County residents.

1.2 Relationship to Other Elements

The Safety Element is integrated with the other elements of the General Plan to protect residents and visitors from unreasonable risks associated with the categories identified. Areas potentially affected by known hazards are depicted on the maps which accompany the Safety Element text. The Safety Element is expected to affect land use policies and is coordinated with the Land Use Element. Safety considerations may affect the Open Space and Conservation Elements, and may present additional justification for lowering density in conjunction with land use decisions, based partly on seismic and landslide risk. The Safety Element is also related to the Housing and Circulation Elements in that it discusses hazards that may affect decision-making in these areas.

2.0 Seismic, Geologic, and Soil Hazards

2.1 Seismicity

Calaveras County lies within the Sierra Block, an area of historically low seismicity. Although the County has felt groundshaking from earthquakes with epicenters located elsewhere, no major earthquakes have been recorded within the County. The closest known source of large earthquakes is the Sierra Frontal Fault System along the eastern margin of the Sierra Nevada, which includes the Carson Valley Fault. This fault is located within a few miles of eastern portions of the County, and has been evaluated as capable of generating earthquakes of up to the magnitude 7.0 range on the Mercalli Scale. Table VII-1 describes the Mercalli Intensity Scale.

The Melones-Bear Mountain Fault System (also known as the Sierra Foothills Fault System) crosses the western portion of Calaveras County. While the northern portion of this system (outside of Calaveras County) is thought to be capable of a magnitude 6.5 earthquake, the level of activity on the portion of the system within Calaveras County is still unknown. However, the risk of surface rupture is not considered sufficient to restrict the development found in the County.

Other fault systems that could affect Calaveras County are the San Andreas Fault, the Hayward Fault, the Calaveras Fault, and the Greenville Fault. Because of their distance from Calaveras County, however, events on these systems are expected to have relatively minor effects in Calaveras County (magnitude 4.0 to 5.0).

TABLE VII-1 MODIFIED MERCALLI INTENSITY SCALE (ABRIDGED)	
Intensity	Effects
I	Not felt except by a very few under especially favorable circumstances.
II	Felt by only a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.
III	Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motorcars may rock slightly. Vibrations like a passing truck.
IV	During the day, felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, and doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motorcars rocked noticeably.
V	Felt by nearly everyone; many awakened. Some dishes, windows, and doors broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of towers, poles, and other tall objects sometimes noticed.
VI	Felt by all; many are frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster or damaged chimneys. Damage slight.
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by person driving motor vehicles.
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Chimneys, factory stacks, columns, monuments, and walls fall. Heavy furniture overturned. Disturbs persons driving motorcars.
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; damage greater in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed, along with foundations; ground badly cracked. Rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.
XII	Damage total. Waves seen on ground surfaces. Lines of sight and level distorted. Objects thrown upward into the air.

Source: United States Geological Survey, 1985.

2.2 Groundshaking

The potential for seismically induced ground shaking is lower in Calaveras County than in most of California. All of Calaveras County may be subjected to shaking of intensity 4.0 to 5.0 on the Mercalli Scale during the infrequent events that occur on the relatively distant branches of the San Andreas Fault System or on the Owens Valley portion of the Sierran Frontal Fault System. The eastern portions of the County may be subjected to somewhat stronger shaking (intensity 6.0 to 7.0 on the Mercalli Scale) if rupture occurs on the Carson Valley Fault. Similar intensities could occur in the western portion of the County if a magnitude 6.0 earthquake were to occur on a nearby branch of the Melones-Bear Valley Fault System. Such an event is considered very unlikely.

2.3 Liquefaction Hazards

Liquefaction is the transformation of uncemented, saturated sand or silt to a liquified state by the ground shaking of an earthquake. This only occurs in soils with very little or no clay. Liquefaction potential is a function of the level of ground shaking at a given site. Although the potential for damage from liquefaction is generally less than ground shaking, it is considerably higher than the potential damage from surface rupture.

Sites in Calaveras County with liquefaction potential would be those on alluvial deposits having groundwater and sand or silt layers of uniform grain sizes within about 30 feet of the surface. Such conditions are generally not present in the county. The areas of alluvial soils (Soil Groups 1 and 2 in Table VII-2 on page VII-4) have some amounts of clay which minimize the liquefaction potential.

2.4 Slope Instability

A landslide is defined as the downslope movement of soil and rock material under the influence of gravity. The formation of landslides under natural conditions depends on several factors including:

Steepness of slopes (landslides occur more readily on steep slopes);

The type of materials (unconsolidated, soft sediments or surface deposits will move downslope more easily than consolidated, hard bedrock);

Structural properties of the materials (the orientation of the rock-layering unit or sediments relative to slope direction);

Water (landslides are generally more frequent in areas of seasonally high rainfall);

Vegetation type (trees and plants with penetrating roots increase ground stability);

Proximity to areas undergoing active erosion (rapid undercutting makes nearby slopes more susceptible to landslides); and

Earthquake-generated ground shaking (strong ground shaking can trigger immediate ground failure or loosen materials and lead to future failure). (J. Laurence Mintier and Associates, 1992.)

There are several areas of the county with steep slopes of 50 percent or greater and therefore have landslide potential. Areas with steep slopes are shown on Slopes and Fault Zones map, Page VII-5. The areas of particular landslide concern are those that include high elevations and steep ravines and gulches associated with river and stream channels.

Artificial slopes associated with the existing mill tailings could also be unstable. Most likely, the tailings will progressively slump and gradually flatten out over time. Slope failures have the potential to impact local drainage courses and/or downstream water quality.

2.5 Expansive Soils

Soils with a high clay content are usually expansive. Minerals in certain clays swell with increased moisture content and then contract during dry periods. The volume changes associated with seasonal variations in moisture content (called shrink-swell characteristics) can damage shallow building foundations and pavement. On slopes, the continuous shrinking and swelling of expansive soils can cause the soil to migrate downslope, which can also disrupt foundations and bury utility lines. The specific soil groups with moderate to high shrink-swell potential are listed in Table VII-2. The location of each soils group can be found on Soil Types map, Page IV-2.

TABLE VII-2 SOILS GROUPS WITH MODERATE TO HIGH SHRINK-SWELL POTENTIAL Calaveras County, 1993	
Soils Group	Description
Group 1	Very deep alluvial soils, moderately good drainage and slight to moderate erosion hazard. Shrink-swell behavior is moderate.
Group 2	Shallow, well-drained gravelly soils with finer subsoils, good natural drainage and a slight to moderate erosion hazard. Shrink-swell behavior is moderate.
Group 5	Deep to shallow, well-drained, slightly acid, and rocky soils. Drainage is good with slight to moderate erosion hazard. Shrink-swell behavior is high.
Group 6	Acid, rocky, or stony soil over slate rock. Erosion hazard is moderate to severe. Shrink-swell behavior is moderate.

Source: Crawford Multari & Starr, 1993.

2.6 Erosion

The discussion of soils found in the Conservation Element of this General Plan noted areas with high erosion hazards in the county. Table VII-3 identifies the soil groups with moderate to high erosion hazard. Erosion Potential map, Page VII-7, identifies the areas with soils and slope characteristics that have high and moderate erosion potential.

For purposes of underwriting fire insurance, communities are classified with respect to their fire defenses and physical characteristics. These classifications are referred to as ISO (Insurance Services Office) ratings and range on a scale of 1 to 10. ISO rating 1 represents the highest level of fire protection and ISO rating 10 represents the lowest level of protection. Calaveras County currently ranges in ISO ratings from 4 to 10.

A community's ISO rating takes into account water supply, fire department capabilities, communities, regulations, hazards and climate. The availability of an adequate water supply and delivery system is a major consideration.

The emphasis of fire protection in Calaveras County is fire suppression. This vitally necessary service is, however, the last resort action. Prevention, detection and automatic extinguishment can precede the need for fire suppression. Principal courses of action in fire protection include a) fire protection education and awareness, b) code adoption and enforcement, and c) fire suppression.

Approximately two-thirds of the County's population are served by district water systems. The remaining one-third of the County's population is served by ground water sources. Water supply for fire purposes in areas where fire hydrant systems are not available depends upon the ability of local fire protection districts to transport water to the site of a fire, or upon individuals who have developed their own water storage systems.

GENERAL PLAN RECOMMENDATIONS

Goal VII-2: Adequately protect natural resources, life and property from fire hazards.

Policy VII-2A: Work cooperatively with all fire protection agencies toward managing wildland fires.

Implementation Measure VII-2A-1: Protect structures from wildland fires by requiring minimum fire breaks around all structures as part of final building inspection.

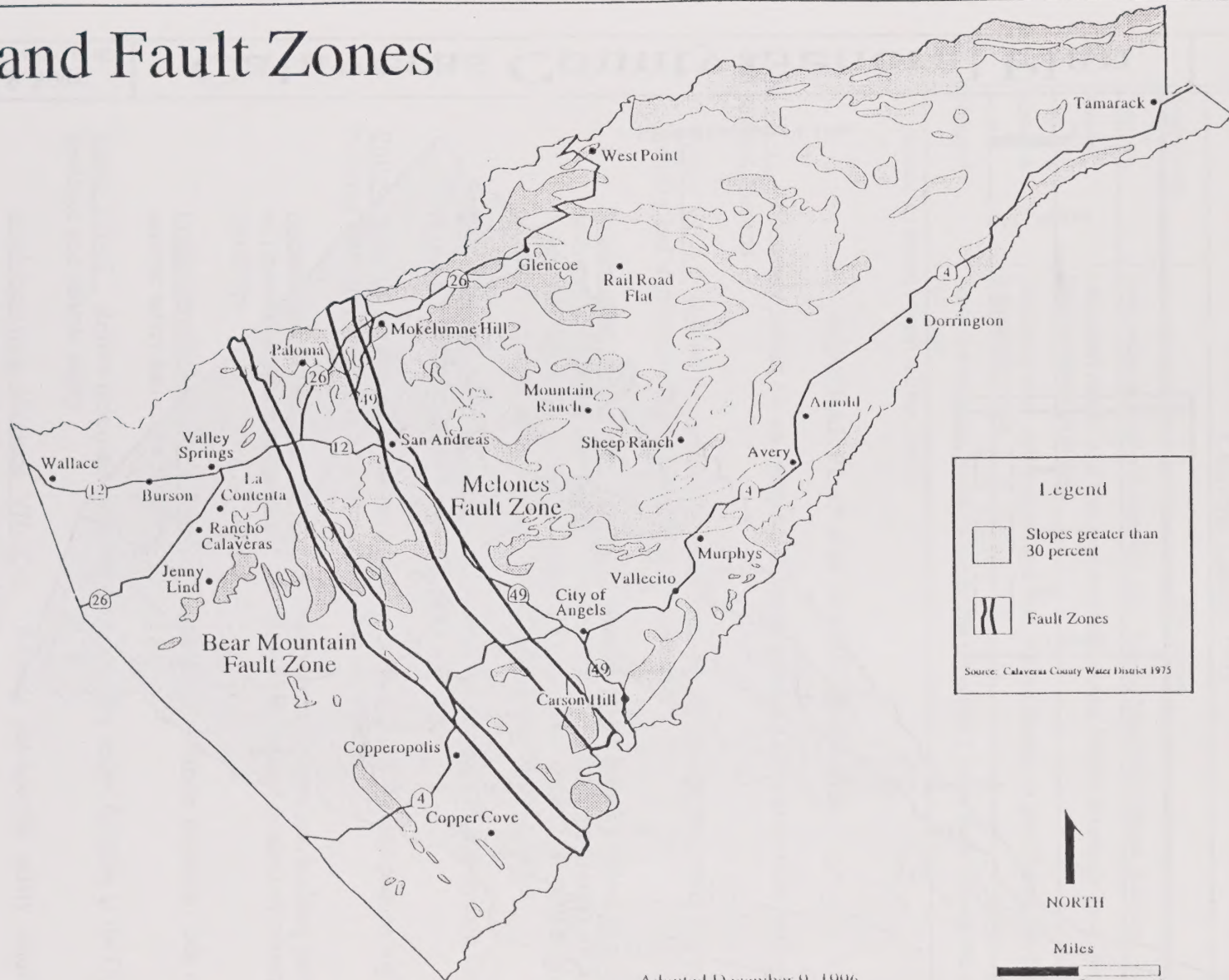
Implementation Measure VII-2A-2: Work with state and federal agencies for joint enforcement of adopted wildland prevention codes.

Policy VII-2B: Evaluate new development for fire safety.

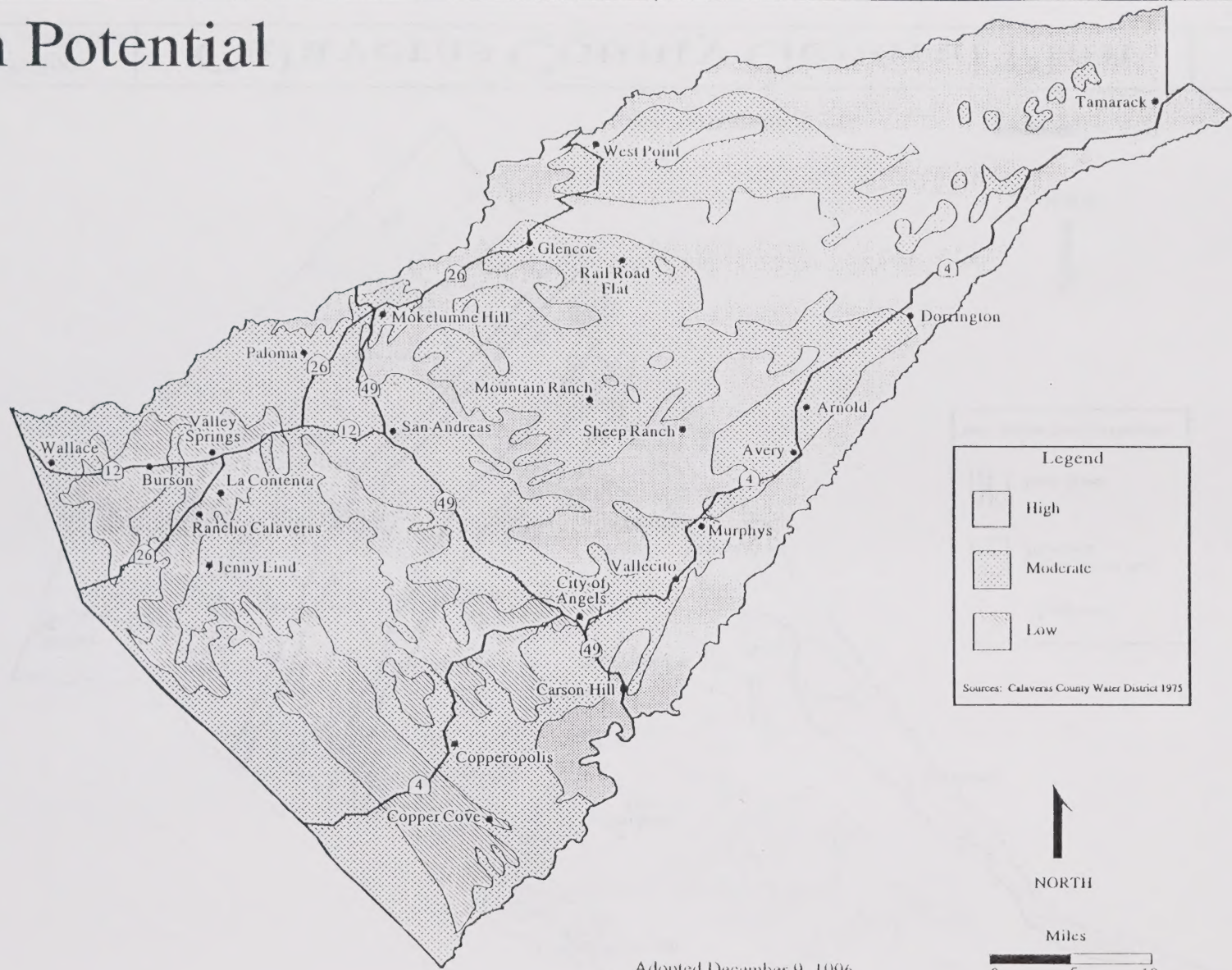
Implementation Measure VII-2B-1: Encourage new development to attain the following ISO ratings:

Land Use and Parcel Size	Fire Protection Level
• Single Family Residential parcel size <20 acres	ISO 8
• Single Family Residential parcel size 20+ acres	ISO 9
• Multiple Family Residential	ISO 7
• Commercial Development and Recreation-oriented	
• Commercial Development	ISO 7
• Industrial Development	ISO 7

Slopes and Fault Zones



Erosion Potential



Adopted December 9, 1996

TABLE VII-3 SOILS GROUPS WITH MODERATE TO HIGH EROSION POTENTIAL Calaveras County, 1993	
Soils Group	Description
Group 6	Acid, rocky, or stony soil over slate rock. Erosion hazard is moderate to severe.
Group 7	Moderately coarse, acid soils over weathered granite. Natural drainage is good. Erosion hazard is moderate to high.
Group 8	Moderately deep, well-drained, acid soils. Natural drainage is good, but erosion hazard is moderate to high.
Group 9	Rocky outcroppings, where the soil mantle is less than 2 inches thick. Erosion hazard is very high.

Source: Crawford Multari & Starr, 1993.

GENERAL PLAN RECOMMENDATIONS

Goal VII-1: Adequately protect life and property from unreasonable risks associated with geological and seismic hazards.

Policy VII-1A: Review future subdivisions in areas of 50 percent or greater slope for slope stability and incorporate appropriate mitigation measures.

Implementation Measure VII-1A-1: Future single-family residential subdivisions having parcel sizes of less than 20 acres shall not be permitted in areas of 50 percent or greater slope. Large developments may contain areas with 50 percent slopes, provided the areas have the appropriate density zoning designation.

Implementation Measure VII-1A-2: Amend the Zoning and Subdivision Ordinances to include procedures for reviewing slope stability.

Policy VII-1B: Review all proposed buildings in the County for compliance with current building standards relating to seismic safety and slope stability.

Implementation Measure VII-1B-1: Incorporate conditions into building permits that will prevent or minimize damage to structures to be located in areas of potential slope instability.

Implementation Measure VII-1B-2: Enforce the Uniform Building Code regarding seismic safety and slope stability.

Policy VII-1C: Review proposals to locate dams or other major facilities in the County for geologic and seismic safety.

Implementation Measure VII-1C-1: Require site-specific safety studies of all proposed dams and other major facilities.

3.0 Fire Hazards

Fires in Calaveras County occur in both urban and wildland settings. Fires can be classified primarily as structure or wildland fires.

Structural fire hazards are identified by evaluating the type of construction, type of occupancy, and available fire protection. Structure fires destroy life, property, historical features and economic resources. A study by the National Fire Protection Association reveals that over 50% of businesses that suffer large losses due to fire do not survive.

Rural areas like Calaveras County face special challenges, including widely scattered population, long response times, inadequate water supplies, limited budgets for apparatus and training, limited opportunity to develop skills in actual fire due to the small number of fires in any one community.

Rural areas have the highest fire death and property loss rates. Based on the most recent national data, the rate of fire deaths per million population in communities with less than 2,500 is roughly double the rate in all other communities, 50% higher than the largest cities. Property damage due to fire averages \$10 per person per year in mid-size cities and \$40 per person per year in rural communities. (Source: NFPA Fire Protection Handbook, 16th ed.)

Wildland fire hazards are identified by evaluating the type and amount of fuels, the weather, and the topography. Wildland fires can result in severe damage to valuable natural resources and important open spaces and recreation areas. Wildland fires destroy commercial timber, homes, increase erosion on steep slopes, and degrade reservoir water quality.

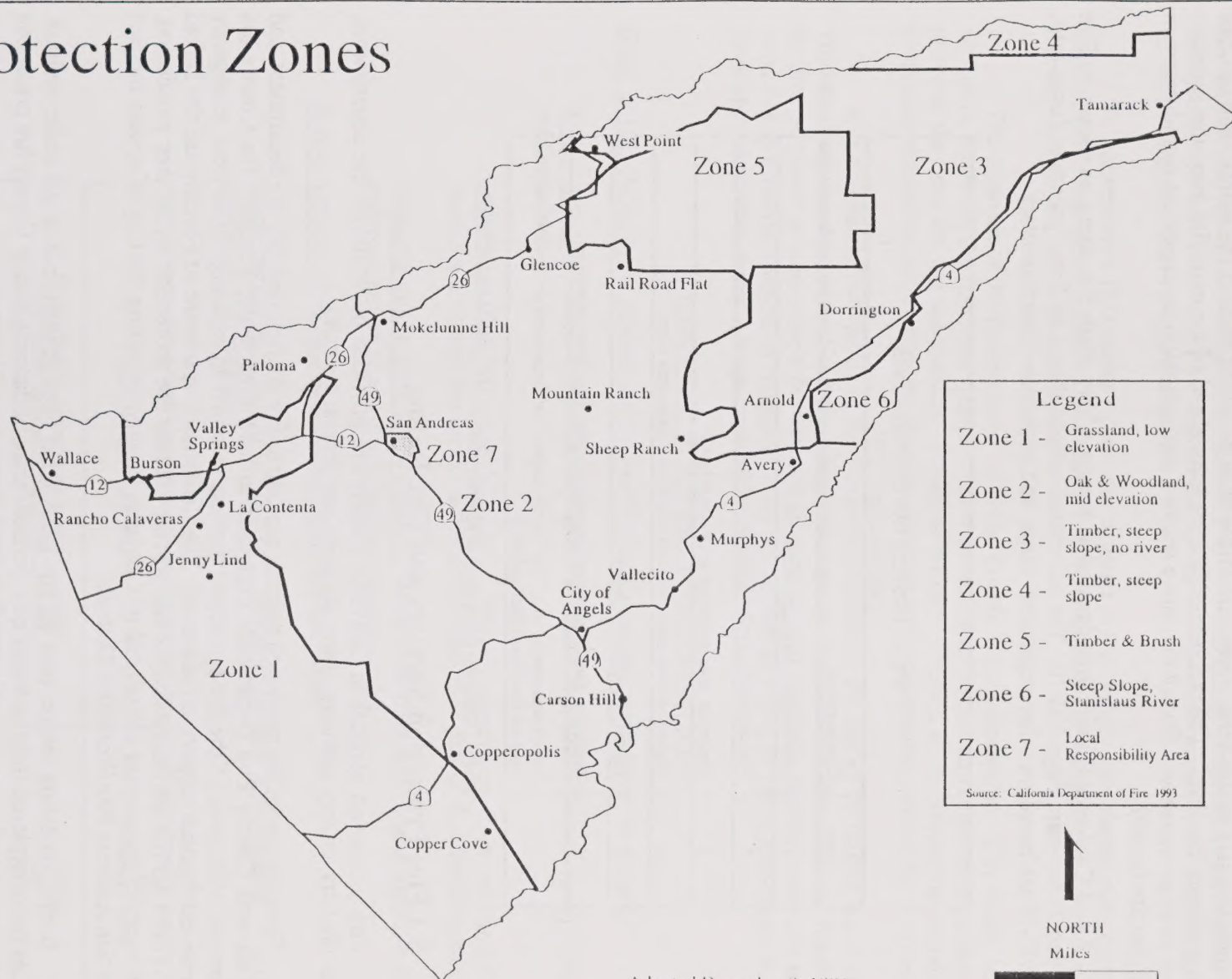
Fuel refers to the quantity of flammable vegetation and other materials per unit of land area, moisture content, chemical content, and the distribution and ratio of dead vegetation to living vegetation.

Fuel found in Calaveras County can be divided into light, medium and heavy categories. The light category includes grassy or rocky areas, meadows, urban areas and cultivated lands. The medium category includes areas of conifer and hardwood tree stands. The heavy category includes areas of shrubs and brush. Fire Protection Zones map, Page VII-10, shows the general distribution of fuel types in the County.

Weather significantly affects fire intensity and behavior. Wind is the most critical factor. As wind velocity increases, the rate of fire spread also increases. Relative humidity also has a direct effect, as drier air produces drier, more combustible vegetation. Precipitation further affects the moisture content of dead and living vegetation. Fire weather is sampled daily during the wildland fire season at over 350 stations located throughout California. Based on this sampling, critical fire weather frequency is classified into three categories. Calaveras County falls into the highest frequency class.

Topography plays several important roles in determining how fires spread. Generally, topography causes fires to burn more rapidly upslope than downslope. Heat from fires below rises and pre-heats the vegetation on higher slopes. By the time fire reaches upslope areas, the trees and brush are already warm, very dry, and easy to ignite. The steeper the slope, the greater the rate of fire spread.

Fire Protection Zones



Legend	
Zone 1 -	Grassland, low elevation
Zone 2 -	Oak & Woodland, mid elevation
Zone 3 -	Timber, steep slope, no river
Zone 4 -	Timber, steep slope
Zone 5 -	Timber & Brush
Zone 6 -	Steep Slope, Stanislaus River
Zone 7 -	Local Responsibility Area
Source: California Department of Fire, 1993	

↑
NORTH
Miles

0 5 10

Adopted December 9, 1996

In addition, travel times for relief vehicles and personnel are generally longer in areas of steep topography since the few roads that exist are usually steep, narrow and winding. As slope increases, it becomes less safe to use hand crews, and forces must be pulled back to the nearest road or ridge top to construct fire lines. The problem of fires spotting ahead of the main fire front also becomes greater as slope increases. For all the above reasons, topography is an important consideration in classifying fire hazard.

All of Calaveras County is designated as having a Very High fire rating, as shown on Fire Protection Zones map, Page VII-10. The sub-classifications shown on Fire Protection Zones map, Page VII-10 are based on other vegetation, slope, and population characteristics:

TABLE VII-4 WILDLAND FIRE PROTECTION ZONES Calaveras County, 1993	
Zone	Characteristics
1	Low elevation grasslands, populated
2	Mid elevation oak and woodlands, populated
3	Timber on steep slopes but no associated river
4	Timber on steep slopes associated with the Mokelumne river
5	Timber and brush, populated
6	Timber on steep slopes associated with the Stanislaus River, populated
7	Local responsibility area. The City of Angels Fire Department or Town of San Andreas Fire District has authority.

Source: California Department of Forestry, 1993.

3.1 Fire Protection Services and Fire Rating

Fire protection services in Calaveras County are provided by volunteer fire departments, special districts, county agencies, state agencies, and federal agencies.

There are eleven fire protection districts, a public utility district, one city fire department, and the Calaveras County Fire Department organized to fight fires in the County. The County has agreements with seven of the fire protection districts in which an exchange of services, emergency response and financial support, is delineated. The California Department of Forestry and the United States Forest Service are responsible for and provide wildland fire protection within their jurisdiction, which together encompass virtually all of Calaveras County, excepting the City of Angels and part of the San Andreas Fire Protection District.

A fire protection master plan for the County has been drafted, but is still under revision. Options being explored include status quo, consolidation of districts and/or County fire protection agencies, and dissolution of the County Fire Department.

For purposes of underwriting fire insurance, communities are classified with respect to their fire defenses and physical characteristics. These classifications are referred to as ISO (Insurance Services Office) ratings and range on a scale of 1 to 10. ISO rating 1 represents the highest level of fire protection and ISO rating 10 represents the lowest level of protection. Calaveras County currently ranges in ISO ratings from 4 to 10.

A community's ISO rating takes into account water supply, fire department capabilities, communities, regulations, hazards and climate. The availability of an adequate water supply and delivery system is a major consideration.

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Approximately two-thirds of the County's population are served by district water systems. The remaining one-third of the County's population is served by ground water sources. Water supply for fire purposes in areas where fire hydrant systems are not available depends upon the ability of local fire protection districts to transport water to the site of a fire, or upon individuals who have developed their own water storage systems.

GENERAL PLAN RECOMMENDATIONS

Goal VII-2: Adequately protect natural resources, life and property from fire hazards.

Policy VII-2A: Work cooperatively with all fire protection agencies toward managing wildland fires.

Implementation Measure VII-2A-1: Protect structures from wildland fires by requiring minimum fire breaks around all structures as part of final building inspection.

Implementation Measure VII-2A-2: Work with state and federal agencies for joint enforcement of adopted wildland prevention codes.

Policy VII-2B: Evaluate new development for fire safety.

Implementation Measure VII-2B-1: Encourage new development to attain the following ISO ratings:

Land Use and Parcel Size	Fire Protection Level
• Single Family Residential parcel size <20 acres	ISO 8
• Single Family Residential parcel size 20+ acres	ISO 9
• Multiple Family Residential	ISO 7
• Commercial Development and Recreation-oriented	
• Commercial Development	ISO 7
• Industrial Development	ISO 7

Implementation Measure VII-2B-2 : Require adequate access for emergency fire equipment to new development by applying standards contained in the County Road Ordinance.

Implementation Measure VII-2B-3 : Update the County Fire Ordinance addressing model fire codes, ISO ratings, and other fire safety regulations.

Implementation Measure VII-2B-4 : Apply the Fire and Life Safety Regulations of the County Code to all new construction.

Goal VII-3 : Improve fire protection services within the County.

Policy VII-3A : Consider new means of delivering fire protection services.

Implementation Measure VII-3A-1 : Support the tanker truck system to serve areas without district water systems.

Implementation Measure VII-3A-2 : Create and adopt a fire protection master plan, and implement its recommendations.

Policy VII-3B : Encourage the development of financial programs to improve fire protection services.

Implementation Measure VII-3B-1 : Investigate the use of fees to assist in the financing of fire protection facilities and services.

Implementation Measure VII-3B-2 : Investigate and pursue additional funding mechanisms available to fund County fire protection.

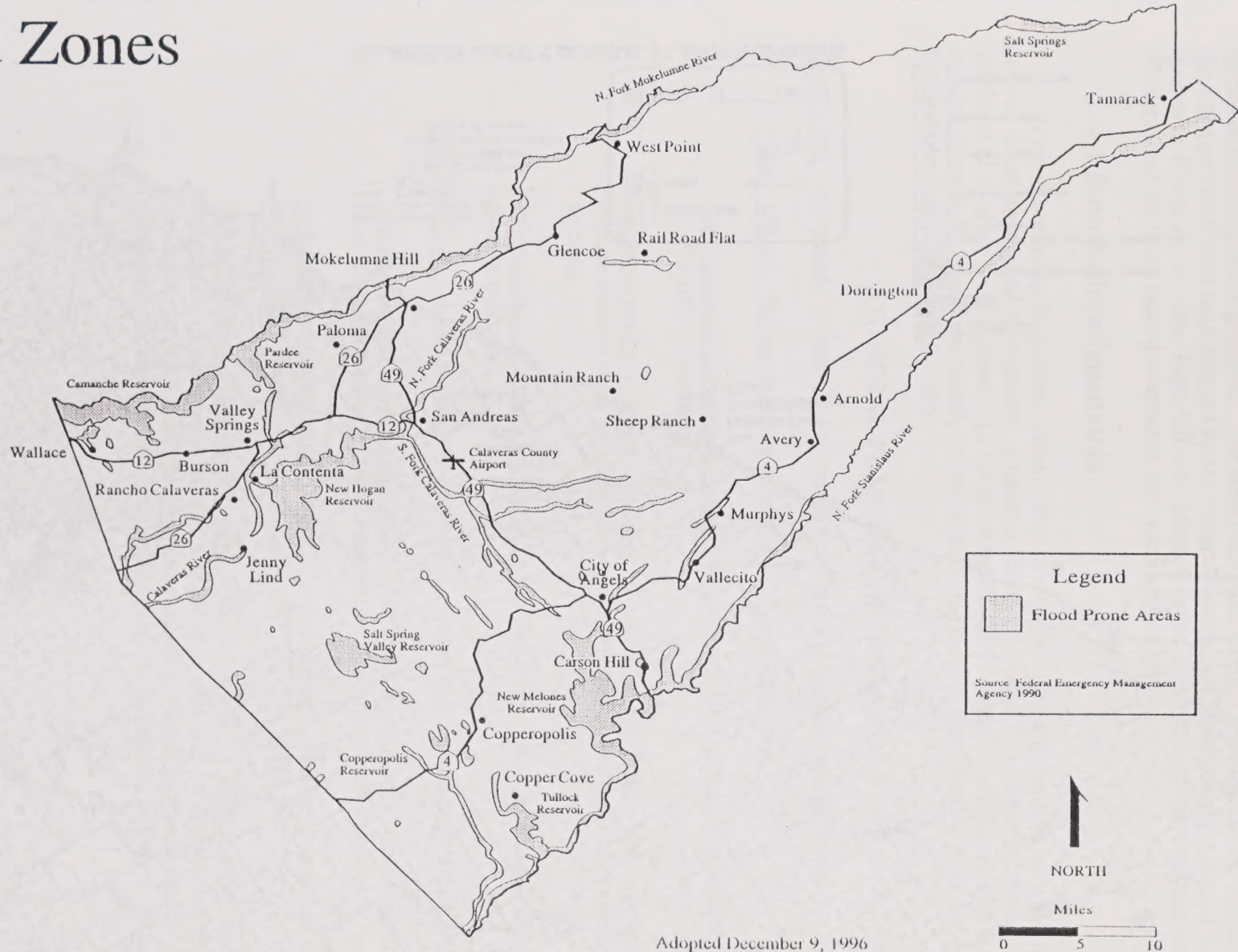
4.0 Flood Hazards

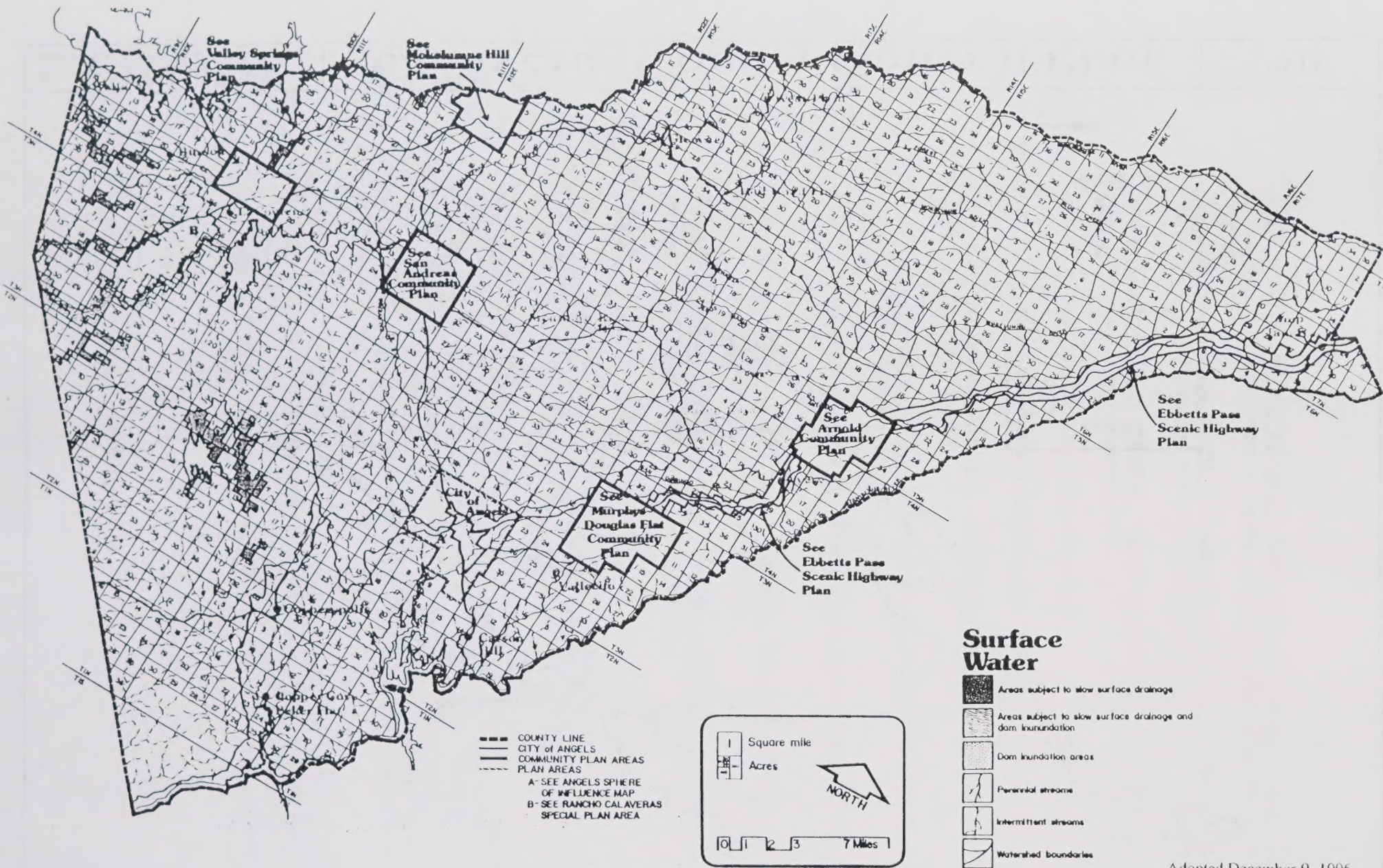
This section addresses three basic types of potential flood hazards: stream-side overbank flows; areas of flat terrain with slow surface drainage; and inundation due to structural dam failure.

Flooding may occur in the County from heavy rainfall with saturated soils, an unusually rapid snow melt, or a combination of those factors. Overbank flow along the main channel of the Mokelumne and Stanislaus Rivers usually results from heavy snow melt coupled with heavy rainfall. This is also true of the mid-elevation tributaries of the Mokelumne River and the upper reaches of the Calaveras River system. Farther west, the source of flood flow waters are heavy rainfall associated with repeated winter storms and a saturated soil mantle. Summer thunderstorms are also occasionally a source of flood flows.

Flood potential can also be affected by land development and associated alteration of natural vegetative cover. Areas of concentrated development can contribute significantly to increased runoff as a result of roof and impervious surface areas. Removal of natural vegetation without new ground cover planting can have similar effects. Large scale alteration of vegetation as a result of wildland fires can also increase flood potential.

Flood Zones





CALAVERAS COUNTY GENERAL PLAN REVISION 1985

Adopted December 9, 1996

Flooding hazards have been statistically evaluated to establish the likely extent of a 100-year flood. This is a flood level that may be expected to occur once every 100 years or to have a 1 percent chance of occurring in any given year. The flood plain areas within Calaveras County associated with the 100-year flood have been mapped by the Federal Emergency Management Agency (FEMA), as shown in Flood Zones map, Page VII-14. More detailed FEMA maps are available for use for evaluation of the flood hazard associated with specific properties.

4.1 Dam Failure Inundation

In and bordering Calaveras County, there are numerous dams used for downstream flood control, water storage and hydroelectric generation. Some of the dams and their respective reservoirs are located in steep river canyons. In the extremely unlikely event of structural dam failure, the inundation areas of these dams closely follow stream courses and then broaden once they reach the flat lands located west of the County.

GENERAL PLAN RECOMMENDATIONS

Goal VII-4: Adequately protect life and property from flood hazards in the County.

Policy VII-4A: Review building proposals for flood safety.

Implementation Measure VII-4A-1: Require that any 100 year flood plains be shown on all building plot plans.

Implementation Measure VII-4A-2: Require that all future buildings within slow surface drainage areas be placed above such areas or on properly designed foundation systems.

Implementation Measure VII-4A-3: Enforce the Uniform Building Code regarding flood protection.

Policy VII-4B: Limit future land subdivisions within inundation areas of dam sites.

Implementation Measure VII-4B-1: Utilize the Environmental Protection combining zone to regulate areas subject to inundation and other flood hazards.

Implementation Measure VII-4B-2: Allow density transfer to areas of a site not located within inundation areas.

Implementation Measure VII-4B-3: When reviewing project proposals, precise delineation of the inundation areas of the dam sites will be accepted as the limiting boundary for the subdivision without requiring a General Plan Amendment, when substantial credible evidence is submitted as to the delineation of the inundation area.

5.0 Hazardous Materials

The General Plan Guidelines of the Governor's Office of Planning and Research define hazardous materials as injurious substances, including pesticides, herbicides, toxic metals and chemicals, liquified natural gas, explosives, volatile chemicals, and nuclear fuels.

The Guidelines for the preparation of Hazardous Waste Management Plans developed by the California Department of Health Services define hazardous wastes as a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may either:

Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.

Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

The Tanner Hazardous Waste Management Planning Law (AB 2948-Tanner, 1986) requires counties to develop local plans to manage hazardous wastes. The Calaveras County Hazardous Waste Management Plan was adopted in 1990 and addresses the policies and programs to manage hazardous wastes.

5.1 Indigenous Hazardous Materials

Hazardous materials indigenous to Calaveras County are those derived from the extraction and processing of toxic metals. Mining has been the backbone of the County's economy since the Gold Rush. Copper and asbestos are two minerals having toxic qualities that have been mined in Calaveras County. Currently, there are no copper or asbestos mines operating in the County. The asbestos mine located near the Stanislaus River between New Melones Reservoir and Lake Tulloch originated in the early 1900's. In 1990, the open pit mine was converted to an asbestos-containing waste landfill.

5.2 Imported Hazardous Materials

Imported hazardous materials are produced elsewhere and brought into the County either for specific purposes or as airborne pollution.

Materials used for specific purposes include: pesticides and herbicides used by agriculture; liquified gas used for energy; and chemicals and explosives used in mineral extraction and processing. The use of these materials is regulated by either federal, state or local government.

Airborne hazardous materials drift into the County by wind. The most common form is air pollution from valley cities and agricultural enterprises. Calaveras County is a member of a regional air district, currently in the Mountain Counties Air District.

Much more hazardous airborne material to which Calaveras County may be potentially exposed would be radiation from the Rancho Seco nuclear power plant, if it were to operate again. Ranch Seco, owned and operated by the Sacramento Municipal Utility District (SMUD), is located approximately fifteen miles from the northwest corner of Calaveras County. Nearly the entire County is within the 50-mile radius "ingestion planning zone." Within that zone, radioactivity could accumulate in food, fodder and water, and eventually be ingested by humans. Parts of Calaveras County, including the communities of Valley Springs, Burson, and Wallace are also within the "extended planning zone." In the event of a major accident, people in that zone would be temporarily sheltered or relocated outside of the zone. However, the plant has been closed since 1983, and currently there are no plans to reopen the facility.

GENERAL PLAN RECOMMENDATIONS

Goal VII-5: Adequately protect life and property from hazardous materials.

Policy VII-5A: Work cooperatively with state and federal agencies in the safe handling of hazardous materials.

Implementation Measure VII-5A-1: Require compliance with federal, state and local safety provisions in the use of hazardous materials in the County.

Policy VII-5B: Assure that mining and processing of toxic metals in the County do not adversely affect the environment.

Implementation Measure VII-5B-1: Enforce all statutes and regulations governing surface mining and reclamation.

Policy VII-5C: Review zoning, use permit, and development requests for compatibility with any nearby use or processing of hazardous materials.

Implementation Measure VII-5C-1: Identify known hazardous waste disposal sites and potentially hazardous or toxic mine waste disposal sites and deny development of residential and commercial uses near those sites.

Goal VII-6: Adequately protect life from radiation in the event of an accident at the Rancho Seco nuclear power plant.

Policy VII-6A: Work cooperatively with the Office of Emergency Services toward protecting humans, plants, and crops from radiation.

Implementation Measure VII-6A-1: Assign responsibility to a person or persons within local government for coordination of all emergency and disaster situations.

6.0 Airport Operations

An airport is considered any area of land or water used or intended to be used for the landing and takeoff of aircraft. Currently, Calaveras County has one public use airport, the Maury Rasmussen Field, and a number of private airstrips. The primary safety issues deal with minimizing risks to both persons on the ground and for the occupants of the aircraft. Both the Federal Aviation Administration and the State Division of Aeronautics contain safety regulations.

GENERAL PLAN RECOMMENDATIONS

Goal VII-7: Adequately protect life and property from the hazards associated with airports and aircraft.

Policy VII-7A: Assure that airports in the County do not adversely affect the safety of persons on the ground or the occupants of the aircraft.

Implementation Measure VII-7A-1: Enforce all statutes and regulations governing airport operations.

Implementation Measure VII-7A-2: Require all projects within the Calaveras County Airport Special Plan.

7.0 General Safety

Every community is provided a margin of safety with public protection services which include police protection, fire protection, public health, Office of Emergency Services, and adult and child protective services. In the unincorporated territory, the County Sheriff's Department is responsible for law enforcement, marine safety and County Jail functions. State highways and County roads are patrolled by the California Highway Patrol.

GENERAL PLAN RECOMMENDATIONS

Goal VII-8: Protect the general safety of Calaveras County residents, property owners and visitors.

Policy VII-8A: Maintain adequate public protection services.

Implementation Measure VII-8A-1: When reviewing development projects, consider the impact on public protection services.

HOUSING ELEMENT

The purpose of the Housing Element is to identify and analyze the County's existing and projected housing needs. The element sets forth goals, policies, implementation measures and programs relating to the maintenance, preservation, improvement and development of housing for all Calaveras County citizens.

The State Legislature has declared that, "The availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every California family is a priority of the highest order." (Government Code section 65580.) To implement that policy, the Legislature has created specific requirements governing the content of General Plan housing elements. Those requirements are set forth in Government Code sections 65580 *et seq.* In addition to specific requirements governing content, State law mandates that housing elements be reviewed periodically and updated at least every five years to reflect the results of periodic review.

The planning policies reflected in the Housing Element are based on data set forth in Appendix A, Tables 1 through 20. An evaluation of the goals contained in Calaveras County's previous Housing Elements (1986) is set forth in Appendix B.

1.0 Housing Needs in Calaveras County

The number and average size of households in Calaveras County, according to the 1990 U. S. Census, are shown in Table 1. The Department of Finance estimates that by 1999, the end of the Housing Element planning period, the number of households in Calaveras County will increase by more than one third.

Information about existing housing units in the County is shown in Tables 2 and 3. Single family homes are the most common type of dwelling unit, followed by mobile homes.

Total vacancy rates in the unincorporated area of the County have declined since 1980, as shown in Table 4. The County's 1990 vacancy rate of 35.5% is a total vacancy rate, which includes dwellings that are "for sale", "for rent", and "seasonal". Of that total, the "for sale" vacancy rate was 3.6% and the "for rent" vacancy rate was 6.2%. The County's high overall vacancy rate is attributable to the large number of seasonal dwellings, particularly in the higher elevations.

The State Department of Housing and Community Development (HCD) defines overcrowding as more than one person per room based on all rooms within the dwelling unit. Table 5 shows the number of occupied housing units with overcrowded conditions according to the 1980 U. S. Census. Figures from the 1990 U. S. Census indicate that overcrowding decreased from 5.3% in 1980 to 4.6% in 1990.

Table 6 shows the results of a study conducted in 1990 to assess local housing conditions and the need for housing rehabilitation. The 1,441 single family homes surveyed represented approximately 10% of the single family homes in the unincorporated territory at that time. 217 multi-family units and 410 mobile homes were also evaluated in the study.

Household characteristics, including seniors, ethnic minorities, female head of household, and disabled persons, are shown in Table 7. Further information about the County's disabled population is given in Table 15.

Population figures and projections for Calaveras County are shown in Table 8. Age projections for County residents are shown in Table 9. Household income characteristics are shown in Tables 10 and 11. The income categories used in Table 10 are based on guidelines of the Department of Housing and Community Development.

Housing units receiving subsidies from U. S. Department of Housing and Urban Development (HUD) programs are shown in Table 14. There are 55 units throughout the County under HUD Section 8 housing contracts, and 11 units (seven in San Andreas and four in Murphys) in the HUD Section 8 Moderate Rehabilitation Program. In addition, a HUD Section 202 project, known as the Bear Mountain Apartments, has been constructed in San Andreas to provide affordable housing for senior citizens. The 11 units in the Moderate Rehabilitation Program have been identified as being "at risk" during the Housing Element planning period because their HUD contracts are due to expire at the end of 1997. However, it is anticipated both that HUD funding will be available for contract renewal, and that all of the affected landlords will renew their contracts. No other "at risk" units have been identified.

Projections regarding the need for new housing units are shown in Tables 12 and 13, the latter providing data by income category. An analysis of suitable sites for new housing to meet the needs of all income categories is found in the next section of this Element.

The population categories shown in Tables 7 and 15 are among those groups with special housing needs. Programs and services to assist special needs groups are discussed in the Housing Assistance Programs section of this Element.

2.0 Inventory of Housing Resources

The development of land for future housing is governed by the Land Use Element of the General Plan. Table 16 in Appendix A shows the approximate acreage within each general plan land use designation.

According to the policies of the Land Use Element, future housing development in the unincorporated County will take place primarily in Community Centers, Community Plan Areas, the Rancho Calaveras Special Plan Area, and areas within the Future Single Family Residential and Mixed Use/Master Project Area designations. An analysis of the County's zoning districts which accommodate residential use, and the permitted density within each zone, is shown in Table 17. Tables 16 and 17 indicate that the County has ample land use potential to accommodate the projected need for new housing (Table 12) during the housing element planning period.

Tables 18 and 19 show the development potential for high and medium density dwelling units in Community Plan areas and Community Centers. The text following those tables briefly describes each area and its housing potential.

Sites suitable for the development of multiple family housing will accommodate the regional housing needs of low and very low income households. The following matrix shows the number of housing units by income category that can be created during the housing element planning period.

Household Income Group	New Construction # of Potential Units	Rehab
Very Low-Income	934	24
Low-Income	622	16
Moderate-Income	818	21
Above Moderate	819	39

In addition to the potential for housing within Community Plan Areas (see Table 18 and associated text) and Community Centers (see Table 19 and associated text), significant housing potential exists within the County's major subdivisions. (For purposes of this analysis, a "major subdivision" is one having 45 or more lots.) Table 20 shows the location, lot potential, and current build out of major subdivisions in the unincorporated territory.

3.0 Constraints on Maintenance, Improvement and Development

3.1 Governmental Controls

The Calaveras County General Plan acknowledges individual property rights for residential development on any legally created parcel. Under the County Zoning Code, a single family dwelling is a permitted use in the residential, recreation, and resource production zones, and is a conditional use in all commercial zones. A conventional single family dwelling is not permitted in the public service (PS) zone, nor in the industrial zones. However, both the PS and the light industrial zones allow night watchman quarters which can be occupied on a permanent basis.

As described in more detail in the Land Use Element, the General Plan establishes residential dwelling unit densities based on the availability of water, type of sewage disposal, road adequacy and land resource value. Because the General Plan is established on a land use capability basis, most lands within the County are designated as natural resource land, which is planned for low density development. Calaveras County is predominantly rural, with past development patterns focusing on natural resource development. Relatively little acreage has been designated for medium and high density residential uses, in proportion to the amount of low density natural resource lands.

The Community Center designation allows higher densities conducive to the creation of affordable housing. Fifteen areas within the County are designated as Community Centers. Also within the County are seven Community and Special Plan areas. Those areas also provide for densities appropriate for affordable housing, as well as sewer and water facilities. Since the County contains enough vacant land for medium and high density residential development to accommodate regional needs (see Housing Element Appendix, Tables 18 and 19), general plan density is not a constraint on affordable housing development.

Further relief from density constraints is provided through density bonuses. The County has adopted zoning regulations to allow a higher density or "density bonus" than is normally permitted within a particular zone, in exchange for the provision of some below market rate housing units. The density bonus is a percentage increase of the density allowed under the applicable general or community plan designation. The density bonus provisions of the County Zoning Code have been adopted to conform to Government Code section 65915.

The Calaveras County Building Department enforces the Uniform Building Code, Uniform Mechanical Code, Uniform Plumbing Code, Uniform Housing Code, Uniform Fire Code, and National Electrical Code, all of which have been adopted, in whole or part, by the Board of Supervisors for application within the unincorporated territory. State and local standards relating to fire safety and health are also enforced by County departments. Building codes and standards protect the general health, safety and welfare. Their use is critical to providing decent, suitable shelter for all segments of the community. However, codes and standards may constrain the development or preservation of affordable housing.

A building permit in Calaveras County takes approximately four - six weeks for approval, including the time necessary for approval of an individual sewage disposal system. Average fees are approximately \$4,200.00, including school, fire and septic fees. In communities which provide either public water or sewer, connection fees range from \$80.00 to \$2,900.00, depending on the adequacy of the sewer and water infrastructure in place to serve new construction.

Enforcement of state and local laws relating to building, fire and health may negatively impact the affordability of existing housing. However, combining code enforcement with financial assistance for rehabilitation, such as Community Development Block Grant programs, can preserve affordability.

Site improvements required by the County Zoning Code address parking, landscaping, building setbacks and maximum lot coverage. Site improvements required for construction of a conventional single family dwelling are minimal, although site development standards for multiple family projects can increase housing costs. Typically, two paved parking spaces are required per dwelling unit, and landscaping is required for 10% of the gross disturbed area. Implementation of FmHA Program 515 (multiple family construction program) and density bonus provisions of the County Zoning Code can reduce costs and make low or moderate income multiple family projects economically feasible.

Development fees also contribute to the cost of housing in Calaveras County. Although the County does not have a program to waive development fees, in certain circumstances, the Board of Supervisors may waive fees for non-profit groups.

To the greatest extent possible, local permitting procedures have been streamlined to facilitate quicker building permit processing and environmental review under the California Environmental Quality Act (CEQA). Permit streamlining is facilitated by the use of a local Development Review Committee, a "one-stop" permitting process and automated permit tracking system. The Development Review Committee may review all commercial, industrial, subdivision, use permit and multiple family proposals. The developer/applicant is afforded an opportunity to meet with the Committee and is informed of requirements necessary to complete the project. The Development Review Committee and efficient permitting systems reduce applicant frustration at having to receive individual approval from each department or agency involved in a particular project.

3.2 Availability of Financing

The availability and cost of financing is often cited as the most important factor affecting the feasibility of affordable housing development. Interest rates can have a significant impact on the ability of a buyer to purchase a home. Interest rates are subject to regional and national economic forces; however, local government can, in a limited way, influence financing costs through a variety of direct loan programs and interest subsidies. While federal and state funding for housing programs have diminished in recent years, there are a number of programs still available to assist local government in providing affordable housing.

In 1975, the California legislature established the California Housing Finance Agency (CHFA). Since that time, the CHFA has developed programs and strategies to meet a wide range of housing needs, including mortgage funding and refinancing, rehabilitation loans, mortgage insurance, and mortgage backed bonding. First time home buyers can receive substantially lower interest rates through CHFA programs. For example:

- » CHFA single family programs provide permanent mortgage financing for first time home buyers, generally at below market interest rates. CHFA mortgage financing is available statewide with special emphasis in target areas, including Calaveras County.
- » The CHFA self help housing program finances homes built by the self help method under the direct supervision of qualified non-profit agencies. Self help projects involve the borrowers acting in whole or part as owner/ builders. So-called "sweat equity" in the improved property is established as the borrower assists in the building of the home.
- » The CHFA matching down payment program provides assistance to rural or target area first time home buyers whose household income falls at or below 80% of the community median.
- » CHFA multiple family programs provide permanent financing to builders and developers of multi-family, elderly, and community rental housing. The CHFA makes below market mortgages available for projects of which at least 20% of the units are set aside for very low income tenants at affordable rents.

In addition to the various CHFA programs, the Federal Housing Administration (FHA) maintains home loan programs for households of virtually every income level. In Calaveras County, private individuals may obtain conventional FHA financing either to build a new home or to sell homes to FHA qualified buyers. New construction eligible for FHA financing includes single and multiple family units, condominiums, and mobile homes. The cost of FHA financing is below that of private lending institutions.

County residents who are service veterans may be eligible to take advantage of the HUD mortgage insurance program for certified veterans. Veterans administration loans may be secured with no down payment and are available for new construction as well as home financing.

3.3 Land and Construction Costs

Market factors, especially the desirability of the location, play a dominant role in determining property values. The facilities and services available also influence land costs. Generally, raw land without sewer, water, power or phone service is least expensive, but there are exceptions. As for costs within Community Centers and Community Plan Areas, the County Board of Realtors sales report for 1991 showed that vacant land prices vary widely, from approximately \$14,000 per lot in the Arnold area to \$58,000 per lot in Valley Springs/La Contenta.

The following table focuses on the total cost of housing construction to the developer, excluding profit, but including land, fees, material, labor and financing. The hypothetical component housing construction costs given are for a typical 1200 square foot single family dwelling.

<u>Hypothetical Component Housing Construction</u> <u>Costs for a Typical 1,200 Square Foot Dwelling</u>		
A.	Building Permit	\$ 2,600.00
B.	Grading and Site Preparation	3,000.00
C.	Estimated Cost for 1,200 sq. ft. dwelling meeting Building Codes at minimum price of \$65.00 per square foot	78,000.00
D.	Lot at \$25,000	25,000.00
TOTAL:		\$108,600.00

If the home is not located within a sewer district, a septic system costing \$5,000 to \$15,000 may be required. If the project is not within a water district with hydrant, water storage of at least 2,000 gallons or payment of an in lieu fee is required. Building permit fees also include statutory school impact fees provided for in Govt. Code section 65995.

3.4 Public Facilities and Services

Calaveras County is a predominantly rural county without the level of facilities and services typically found in urban areas. Currently, the County has five public water suppliers and five sanitation districts. The County's largest water and sewer provider is the Calaveras County Water District (CCWD).

Most of the population in the unincorporated territory is not served by sewer systems, but relies on individual systems, primarily septic tanks. CCWD reported that it had 2,102 sewer connections in nine communities. In addition to those communities, San Andreas, Angels Camp, Mokelumne Hill and Murphys have their own sanitary sewer systems. The Mokelumne Hill and Murphys systems are currently at or near capacity.

In most unincorporated communities, the sewer and water infrastructure needed to accommodate residential growth is absent or limited. If a system does exist, the providers of services must either agree to extend services to a new development, or the developer must fund any expansion made necessary by the development. If there is no existing system, one must be provided to serve new development.

According to the "Report on Public Service and Employment Development Needs in Calaveras County" (Connerly & Associates, January 1991), the County is not financially able to facilitate the construction of sewer and water infrastructure through general obligation bonds. The report identifies that property developers would need to form assessment districts to finance improvements, or the County may charge development fees to cover the costs of sewer and water infrastructure, or may pursue state and federal grants. To improve sewer and water infrastructure, and the production of affordable housing, the County may pursue State Economic Allocation Grant funds. That grant program permits funds to be used for the expansion of public facilities for affordable housing, as discussed in the Housing Element Program Implementation Table at the end of this element.

3.5 Housing Assistance Programs

The aged population in Calaveras County is growing and requires special housing and programs. In 1980, the U. S. Census reported 1,781 households in unincorporated areas of the County which were headed by persons over age 65. The Amador-Tuolumne Community Action Agency provides assistance to seniors through the Senior Shared Housing Program. Other active senior support groups, such as the Red Cross, churches, service clubs and charitable organizations provide private senior housing assistance on a periodic basis.

Large families, defined by the U. S. Census Bureau as having five or more members, may take advantage of a FmHA Section 502 self help housing program operated by the Rural California Housing Corporation at Six Mile Village. That site is particularly suited for large families, because housing consists of single family detached homes rather than apartments.

In Calaveras County, the wine industry is the single largest employer of seasonal farmworkers. Wineries may have plans for expansion during the Housing Element planning period, which may increase the need for seasonal laborers. Currently, only Kautz Vineyards in Murphys has permanent farm laborers. Other wineries bus their seasonal laborers into Calaveras County from the Central Valley. As the County's wine industry expands, the housing needs of farmworkers may increase if more wineries require permanent employees. The County Zoning Code provides for farm labor housing or camps in agricultural zones, and accessory dwelling units in residential zones. There are currently no government assisted farm labor housing programs in the County.

The County Welfare Department provides housing assistance for female heads of household through Aid to Families with Dependent Children (AFDC). Those programs primarily involve rent assistance. The Central Sierra Planning Council also provides assistance to this special needs group through the HUD Section 8 rental subsidy program. Under that program, a family may qualify for subsidized rent for an apartment, house or mobile home. Several female heads of household have also participated in the FmHA Section 502 self help housing program, and in the Community Development Block Grant housing rehabilitation loan program.

In Calaveras County, there are approximately 100 persons per year in need of emergency shelter or homeless assistance. Emergency shelter and homeless assistance are provided by the County in conjunction with the Calaveras Human Resources Council. The Council reports that approximately half of Calaveras County's homeless are County residents, and half are "passing through". To assist the homeless, the Human Resources Council operates a state-funded emergency shelter program. The County provides a contract to the Human Resources Council for vouchers for emergency shelter at the Black Bart Inn in San Andreas, while clients seek permanent housing. The County Welfare Department also operates a homeless assistance program. That program is aimed at helping AFDC or General Assistance recipients stay in their current housing, in addition to providing direct homeless housing in some cases. While short term homeless housing is provided on a contract basis at the Black Bart Inn, the County does not maintain a permanent shelter to house the homeless.

3.6 Energy Conservation Opportunities

New Residential Construction. In response to a need for increased residential energy efficiency to offset high energy costs and consumption of energy reserves, the California Energy Commission established State Building Energy Efficiency Standards for new dwelling construction. The following is a description of those standards as they relate to Calaveras County.

Calaveras County is in Climate Zones 12 and, above 3,000 feet, 16. Climate Zones represent geographic areas which correspond to annual "energy budgets." An energy budget is a measure of British Thermal Units (BTUs) consumed per square foot of gross floor area per year.

Energy consumption is an important factor in setting design criteria for new low rise residential dwelling units. New residential units must conform to specific outdoor design criteria based on the heating and cooling loads a building is likely to experience in an average year at its particular location. New single family residential units can be evaluated for energy consumption either by use of the "Prescriptive Package", "Point System", or the "Computer Method".

The Prescriptive Package uses Climate Zone data to set design criteria which must be installed in a dwelling unit to meet or exceed minimum conservation levels. A typical Prescriptive Package for Calaveras County sets guidelines for the building envelope, window glazing, shading, thermal mass, and space and water heating systems.

Under the Point System, various energy conservation design criteria are given either negative or positive values. Positive values are assigned to features that reduce annual energy use, and negative values increase energy use. For a low rise residential structure to demonstrate compliance, the sum of the values must be zero or above.

The Computer Method uses programs to model the thermal behavior of buildings by calculating heat flow into and out of the various thermal zones of the building. This technique analyzes heat gain and loss, solar gain, heat storage, and heating and cooling equipment efficiency.

Existing Homes. The Pacific Gas and Electric Company (PG&E) offers a Direct Weatherization Program to qualifying low income customers for the installation of energy conservation measures, such as attic insulation, water heater blankets, low flow showerheads, caulking, weather stripping, duct wrap, and minor repairs to seal the exterior of the home. PG&E

also offers a Low Cost Weatherization Program to customers in selected low to moderate income communities. To qualify for this program, at least 60% of a community's customers must be at 80% or less of the community median income. The Low Cost Weatherization Program offers the following free of charge: low flow showerheads, water heater blankets, faucet aerators, switch and outlet plate gaskets and fluorescent lights. Similar weatherization assistance is available to low income households from the Amador-Tuolumne Community Action Agency.

GENERAL PLAN RECOMMENDATIONS

Goal VIII-1: Endeavor to provide decent, safe and adequate housing for Calaveras County residents regardless of age, race, marital status, ethnic background, income, or other arbitrary factors.

Policy VIII-1A: Promote home ownership and housing opportunities for the County's low and moderate income households.

Implementation Measure VIII-1A-1: Comply with Government Code section 65008(c) which prohibits county discrimination against housing intended for persons of low, moderate or middle income.

Policy VIII-1B: Promote citizen awareness and utilization of fair housing laws and programs.

Implementation Measure VIII-1B-1: Develop informational literature for posting and distribution at county departments to educate the public about fair housing program services.

Implementation Measure VIII-1B-2: Refer complaints of housing discrimination to the Calaveras County Human Resources Council.

Implementation Measure VIII-1B-3: Refer county residents to the Calaveras County Human Resources Council for information on fair housing laws.

Goal VIII-2: Increase the number of low and moderate income housing units to meet housing needs identified in this Element.

Policy VIII-2A: Encourage developers to provide immediate housing opportunities for low income families, instead of tracts of undeveloped lots.

Implementation Measure VIII-2A-1: Amend the County Zoning Code to include density bonuses and other incentives, as set forth in Government Code section 65915.

Implementation Measure VIII-2A-2: Provide information to encourage developers to take advantage of density bonuses and other available incentives.

Implementation Measure VIII-2A-3: Utilize the following income categories and qualifying income limits in developing the County's density bonus program:

<u>CATEGORY</u>	<u>INCOME LIMIT</u>
Very Low Income	Not higher than 40% of County median household income
Low Income	Not higher than 50% of County median household income

Implementation Measure VIII-2A-4: Continue active involvement in federal and state housing programs that provide increased opportunities for the construction of low and moderate income housing units.

Implementation Measure VIII-2A-5: Encourage the efforts of the Rural California Housing Corporation and other nonprofit agencies to increase and expand the amount of FmHA 502 Self Help Housing on sites appropriate for low cost single family dwellings in Calaveras County.

Implementation Measure VIII-2A-6: Utilize economic development allocation grant funds to provide the necessary public infrastructure improvement projects for the construction of affordable single and multiple family dwellings in Calaveras County.

Policy VIII-2B: Encourage property owners to improve and maintain the County's existing low and moderate income housing stock.

Implementation Measure VIII-2B-1: Pursue federal, state and private resources to assist in the rehabilitation and conservation of existing affordable housing units.

Implementation Measure VIII-2B-2: Utilize Community Development Block Grants for housing rehabilitation, including health and safety repairs in substandard homes.

Implementation Measure VIII-2B-3: Consider requests on a case-by-case basis to waive building permit and inspection fees applicable to rehabilitated substandard units occupied by low income senior citizens or recipients of Aid to Families with Dependent Children (AFDC).

Implementation Measure VIII-2B-4: Assure compliance with the Uniform Building Code by requiring necessary inspections.

Policy VIII-2C: Encourage development of rental units to meet the needs of low and moderate income households in Calaveras County.

Implementation Measure VIII-2C-1: Work cooperatively with local water and utilities districts to insure their compliance with Govt. Code section 65589.7 regarding the granting of water and sewer priority to proposed affordable housing developments.

Implementation Measure VIII-2C-2: Encourage the Rural California Housing Corporation and/or other private nonprofit organizations to expand the amount of FmHA 515 Subsidized Multiple Family Housing on sites appropriate for low cost multiple family dwellings in Calaveras County.

Implementation Measure VIII-2C-3: Allow the construction of accessory dwellings on parcels of one acre or more in conformance with Chapter 17.66 of the Calaveras County Zoning Code.

Policy VIII-2D: Accommodate manufactured housing within the County and assure its compatibility with the community.

Implementation Measure VIII-2D-1: Review building permit applications for compliance with County regulations governing manufactured housing and accessory dwellings.

Policy VIII-2E: Encourage maintenance of the County's existing affordable rental housing stock.

Implementation Measure VIII-2E-1: Retain the 55 Section 8 certificates presently allocated to Calaveras County.

Goal VIII-3: Work for the maintenance, preservation, improvement and development of housing as a part of a balanced local economy while preserving the historic and rural character of Calaveras County.

Policy VIII-3A: Strive to provide an equitable balance between jobs and housing.

Implementation Measure VIII-3A-1: Work cooperatively with agencies to improve the jobs and housing balance and to encourage participation in economic development activities.

Policy VIII-3B: Encourage housing development projects to preserve or enhance their surroundings.

Implementation Measure VIII-3B-1: When considering requests for new multi-family residential zoning, utilize the Planned Development (PD) Combining Zone as needed to insure that the project conforms with or enhances surrounding features.

Implementation Measure VIII-3B-2: Investigate development of a Historic Preservation Ordinance designed to carry out historic preservation development policies.

Goal VIII-4 : Reduce housing costs attributable to heating and cooling.

Policy VIII-4A: Encourage the construction of energy efficient homes and county wide participation in home weatherization programs.

Implementation Measure VIII-4A-1: In accordance with Government Code section 66473.1, encourage developers to provide to the extent feasible for present and future passive or natural heating and cooling opportunities.

Goal VIII-5: Improve housing opportunities for special needs groups in Calaveras County.

Policy VIII-5A: Promote the provision of affordable housing for handicapped, senior, farm worker and other identified special needs groups in Calaveras County.

Implementation Measure VIII-5A-1: Comply with Government Code section 65589.5 when considering proposals to develop housing affordable to low- and moderate- income households.

Policy VIII-5B: Promote programs which address the needs of the homeless.

Implementation Measure VIII-5B-1: Continue funding for the homeless emergency shelter program in Calaveras County.

Implementation Measure VIII-5B-2: Identify either a site near San Andreas suitable for the construction of an emergency homeless shelter or an existing building capable of temporarily housing those in need of emergency shelter.

Implementation Measure VIII-5B-3: Cooperate with local and regional planning agencies in establishing annual meeting to address regional homeless issues.

Policy VIII-5C: Permit temporary residence to persons while they are building their permanent residence.

Implementation Measure VIII-5C-1: Enforce the provisions of the County Zoning Code relating to temporary occupancy.

Policy VIII-5D: Ensure that seasonal labor or group camps adequately protect the health, safety and welfare of occupants and of the public.

Implementation Measure VIII-5D-1: Review permits for group or labor camps to be used on a seasonal basis for compliance with all zoning, building, fire and environmental health standards.

Implementation Measure VIII-5D-2: Review applications for new or expanded wineries and require that the local housing needs of seasonal workers be appropriately addressed.

Goal VIII-6: Insure that development of mobile home parks takes place in compatible areas of the County.

Policy VIII-6A: Consider approval of mobile home parks on residential lands in concert with applicable density and in compliance with environmental requirements.

Implementation Measure VIII-6A-1: As appropriate, amend the County Zoning Code to conditionally permit mobile home parks in all single family residential zones, provided that the density of the mobile home park does not exceed allowable density for the property.

Implementation Measure VIII-6A-2: Require that mobile home parks of five or more units be located within or adjacent to communities that can provide employment, goods and services commensurate with the expected demands of such projects.

Goal VIII-7: Ensure that time sharing land uses are directed to compatible areas of the County.

Policy VIII-7A: Consider approval of time sharing land uses in areas where the project will adequately serve the recreation and transient needs of time share owners.

Implementation Measure VIII-7A-1: Enforce the provisions of the County Zoning Code regarding zones and development standards in which time sharing land uses are permitted or conditionally permitted.

Implementation Measure VIII-7A-2: Enforce the provisions of the County Subdivision Code regarding state and local requirements for creation of time share units.

Goal VIII-8: Implement the specific action programs and quantified objectives shown in Table A.

TABLE A
HOUSING PROGRAM IMPLEMENTATION AND
QUANTIFIED OBJECTIVES 1992 TO 1999*

HOUSING REFERENCE PROGRAM	RESPONSIBLE AGENCY	FUNDING SOURCE	OBJECTIVE	TIME FRAME	NUMBER
Anti-Housing Discrimination Efforts	Calaveras County Planning Dept. Calaveras County Human Resources Council	Local	Ongoing	1993	(1)
Density Bonus	Calaveras County Planning Dept.	Local	50 D.U.	1999	(2)
FmHA Section 552	Calaveras County Planning Dept.	HUD	20 D.U.	1999	(3)

Infrastructure Improvement Economic Development Allocation Funds	Calaveras County Administration Calaveras Economic Development Corp.	State	N/A	1999	(4)
Permit Process Incentives/ Permit Fee Reductions	Calaveras County Planning and Building Depts.	Local	N/A	1994	(5)
Housing Rehabilitation	Calaveras County Administration	HUD/CDBG	60	1999	(6)
Section FmHA 515	Calaveras County Rural California Housing Corporation Calaveras County Planning Dept.	HUD	35	1999	(7)
Accessory Dwellings	Calaveras County Planning Dept.	Local	100	1999	(8)
Section 8 Program	Central Sierra Planning Council 1	HUD	6	1995	(9)
Mobilehome Building Permits	Calaveras County Planning Dept State HCD	Local	537	1999	(10)
County-wide Weatherization Program	Pacific Gas and Electric, Human Resources Council Amador Community Action Agency	HUD/CDBG private monies	500	1999	(11)
Special Needs Housing	Calaveras County Planning Dept.	State	N/A	1999	(12)
Homeless Housing	Calaveras County Administration Human Resources Council	SCCDBG State	N/A	N/A	(13)
Temporary Trailer Permits	Calaveras County Planning Dept.	Local	400	1999	(14)

Mobilehome Park Permits	Calaveras County Planning Dept State HCD	Local	N/A	1993	(15)
General Plan Consistency	Calaveras County Planning Dept.	Local	N/A	N/A	(16)
Monitor "At Risk" Housing	Calaveras County Planning Dept.	Local	N/A	12/31/96	(17)
Processing of Multi-family Building Permits	Calaveras County Planning and Building Depts.	Local	.120	1999	(18)

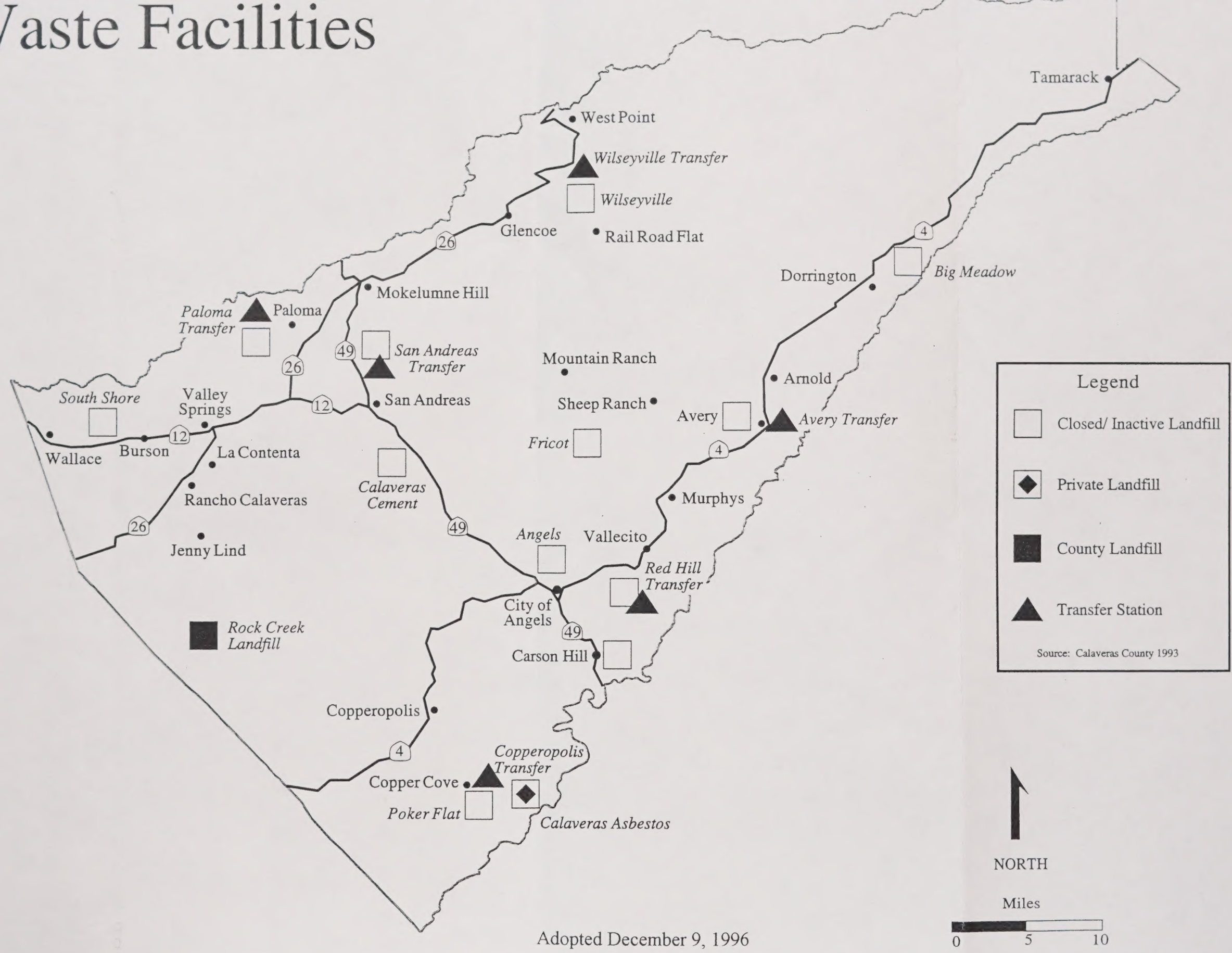
- * The Housing Programs contained in Table A provide for the construction of 742 affordable housing units during the Housing Element planning period of 1992 to 1999.

San Joaquin River
California-Spanish Plan



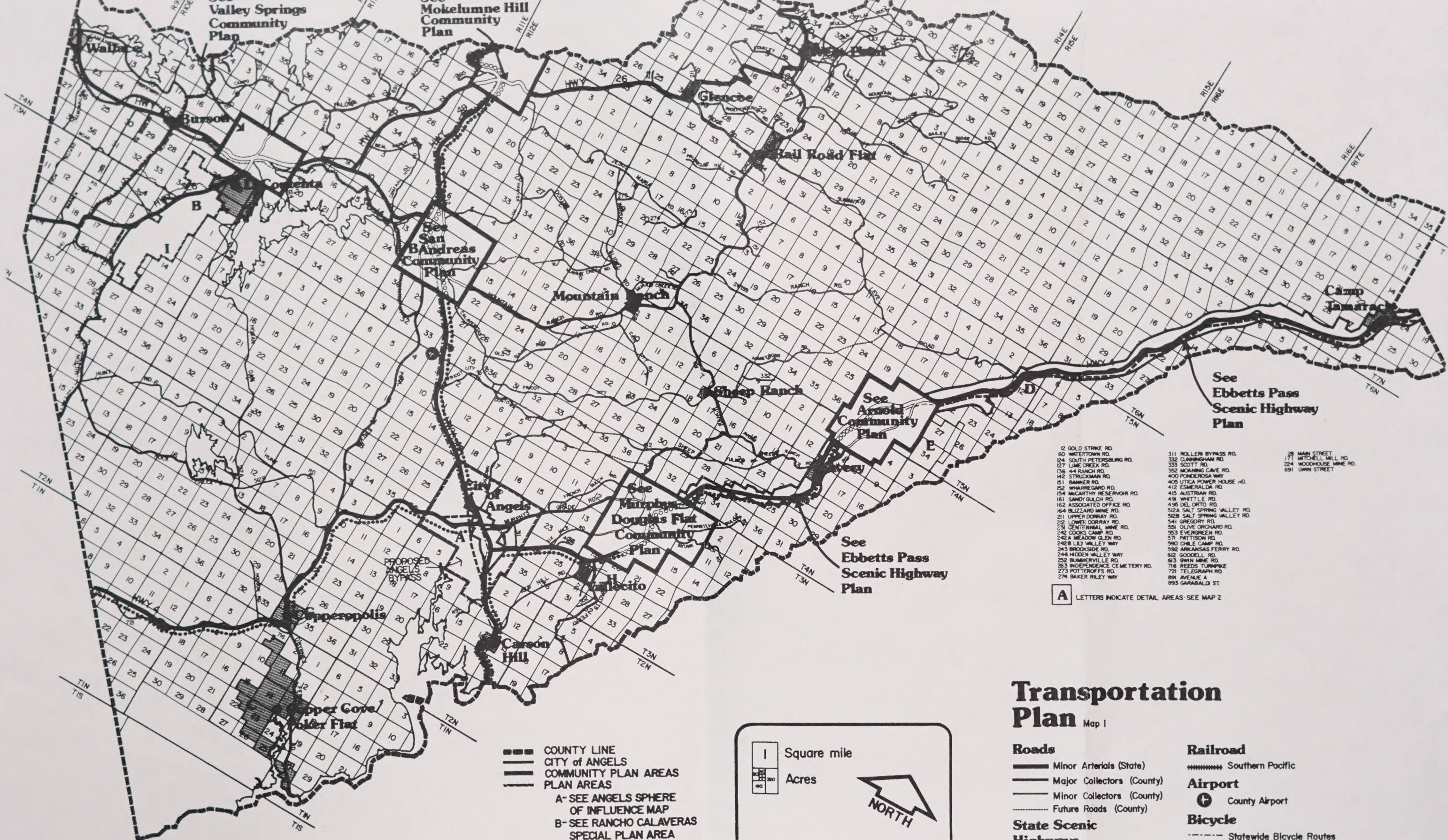
Scale 1:100,000
Source: U.S. Geological Survey
Map of the San Joaquin River
California-Spanish Plan
1900

Solid Waste Facilities



Solid Waste Facilities





- | | | |
|-------------------------------|-----------------------------|------------------------|
| 12 GOLD STRIKE RD. | 311 ROLLER BYPASS RD. | 28 MAIN STREET |
| 60 WATERTOWN RD. | 332 CUNNINGHAM RD. | 171 MITCHELL HILL RD. |
| 224 SOUTH PETERSBURG RD. | 333 SCOTT RD. | 224 WOODHOUSE MINE RD. |
| 127 LIME CREEK RD. | 352 MOANING CAVE RD. | 691 GWIN STREET |
| 136 44 RANCH RD. | 400 PONDEROSA WAY | |
| 142 STRUCKMAN RD. | 405 UTICA POWER HOUSE RD. | |
| 51 BANNER RD. | 412 ESERALDA RD. | |
| 152 WHARFEGARD RD. | 415 AUSTRALIAN RD. | |
| 154 MCCARTHY RESERVOIR RD. | 498 WHITTLE RD. | |
| 161 SANDY GULCH RD. | 495 DEL ORTO RD. | |
| 162 ASSOCIATED OFFICE RD. | 512A SALT SPRING VALLEY RD. | |
| 164 BUZZARD MINE RD. | 528 SALT SPRING VALLEY RD. | |
| 211 UPPER DORRAN RD. | 541 GREGORY RD. | |
| 212 LOWER DORRAN RD. | 551 OLIVE ORCHARD RD. | |
| 231 CENTENNIAL MINE RD. | 592 ARKANSAS FERRY RD. | |
| 240 COOKS CAMP RD. | 593 EVERGREEN RD. | |
| 242A MEADOW GLEN RD. | 571 PATTISON RD. | |
| 242B LILY VALLEY WAY | 590 CHILE CAMP RD. | |
| 243 BROOKSIDE RD. | 592 ARKANSAS FERRY RD. | |
| 246 HIDDEN VALLEY WAY | 612 GOODSELL RD. | |
| 252 BURNBURY RD. | 613 GWIN MINE RD. | |
| 263 INDEPENDENCE CEMETERY RD. | 716 REEDS TURNPIKE | |
| 273 POTTEROFS RD. | 721 TELEGRAPH RD. | |
| 274 BAKER RILEY WAY | 891 AVENUE A | |
| | 893 GARABOLDI ST. | |

A LETTERS INDICATE DETAIL AREAS-SEE MAP 2

- COUNTY LINE
- CITY OF ANGELS
- COMMUNITY PLAN AREAS
- PLAN AREAS
- A- SEE ANGELS SPHERE OF INFLUENCE MAP
- B- SEE RANCHO CALAVERAS SPECIAL PLAN AREA

Square mile

Acres

NORTH

0

1

2

3

7 Miles

Transportation Plan

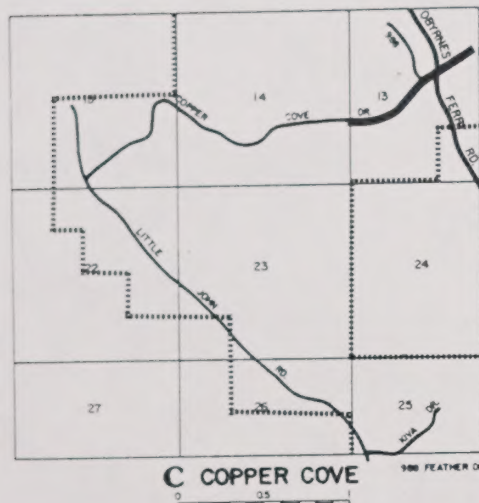
Map 1

- | | |
|------------------------------|------------------------------|
| Roads | Railroad |
| — Minor Arterials (State) | — Southern Pacific |
| — Major Collectors (County) | |
| — Minor Collectors (County) | Airport |
| — Future Roads (County) | ⊕ County Airport |
| | Bicycle |
| | --- Statewide Bicycle Routes |
| | Local roads not shown |
| State Scenic Highways | |
| --- Officially adopted | |
| Proposed | |
| Community Centers | |

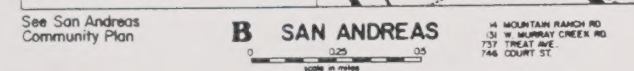




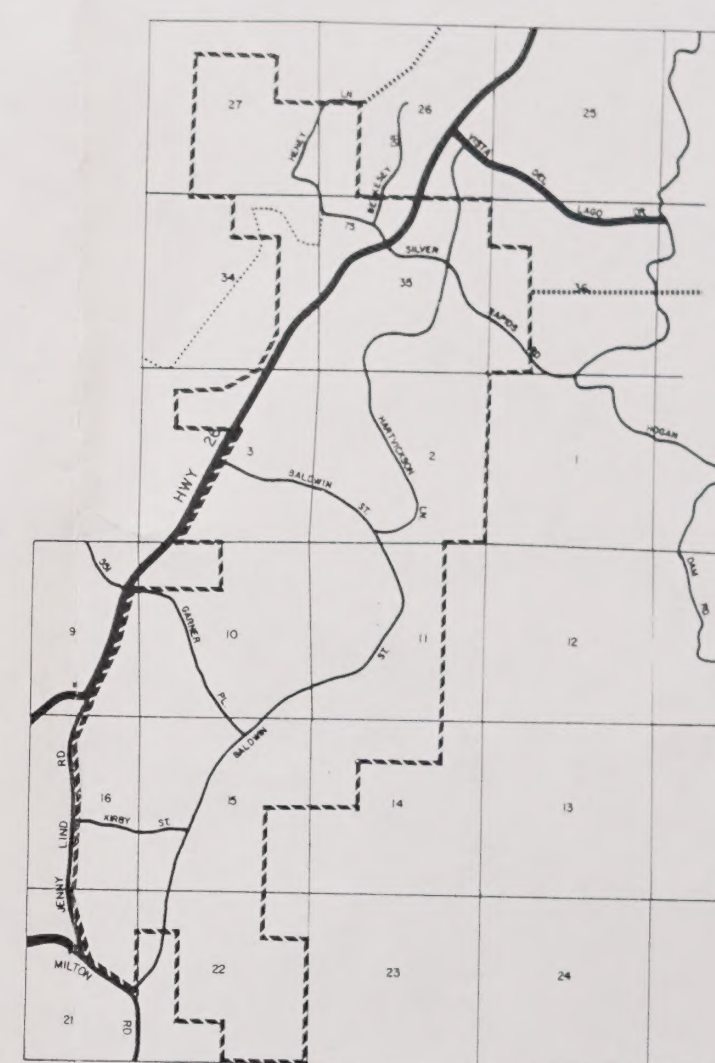
A WEST POINT



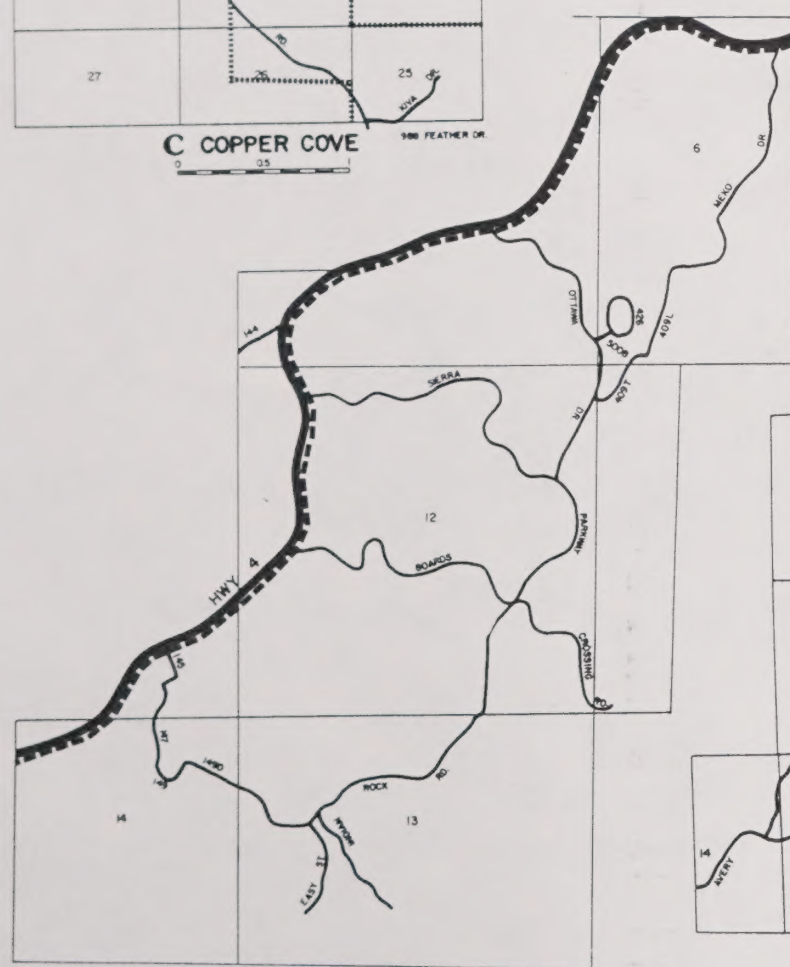
C COPPER COVE



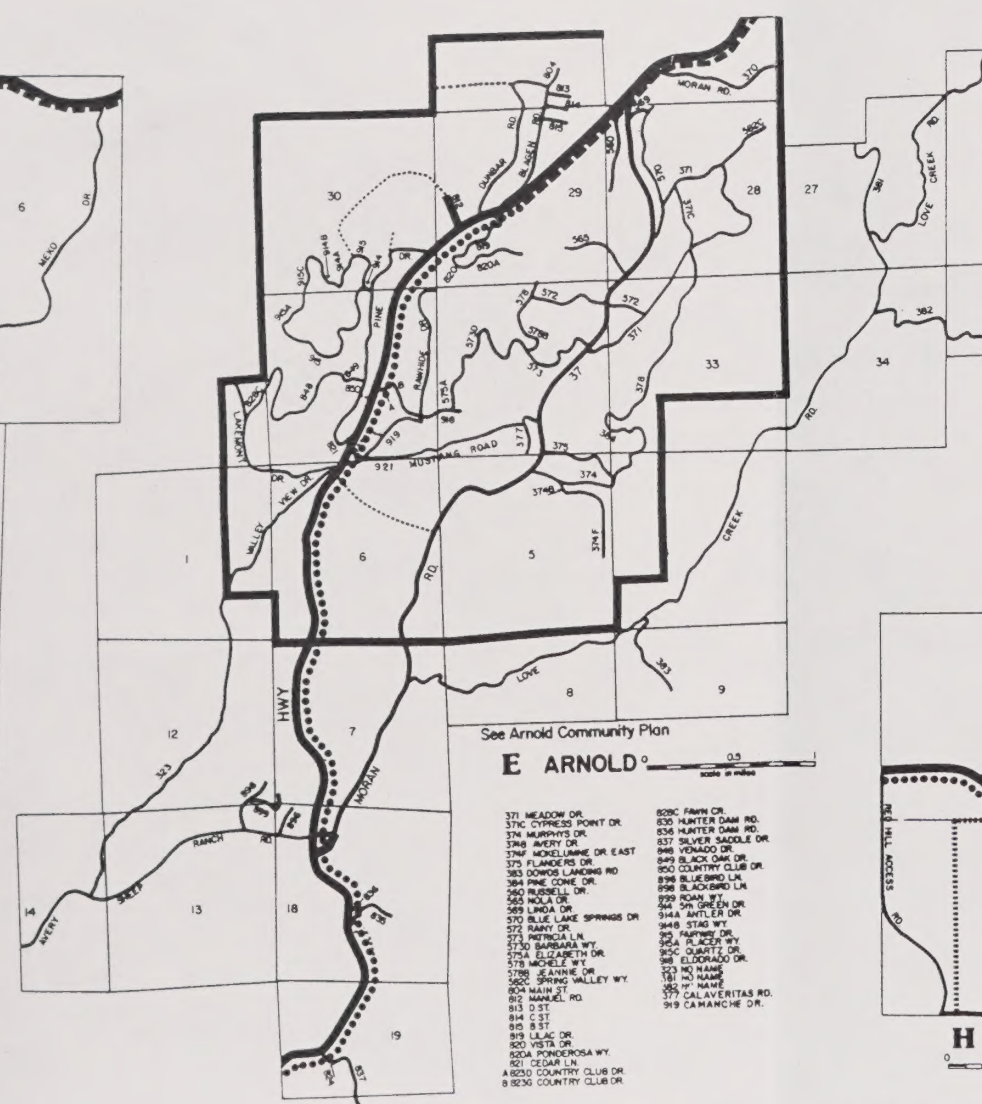
B SAN ANDREAS

**F MURPHYS**

I RANCHO CALAVERAS/JENNY LIND

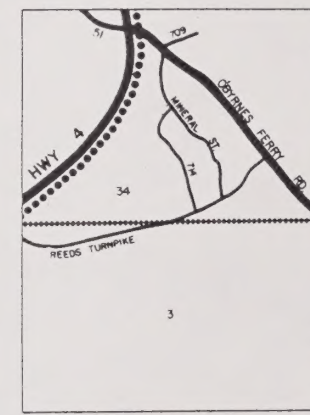


D DORRINGTON

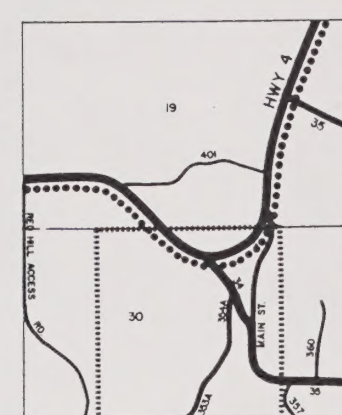


See Arnold Community Plan

E ARNOLD°—



G COPPEROPOLIS



H VALLECITO

Transportation Plan

Map 2

Roads (within Plan Area and Community Centers)

- Through
 Connector
 Residential (when shown)
 Future

State Scenic Highways

- Officially Adopted
..... Proposed

Bicycle

- Statewide Bicycle Routes

-  Community Plan boundary
 Community Center boundary
 Special Plan boundary

AMENDMENTS

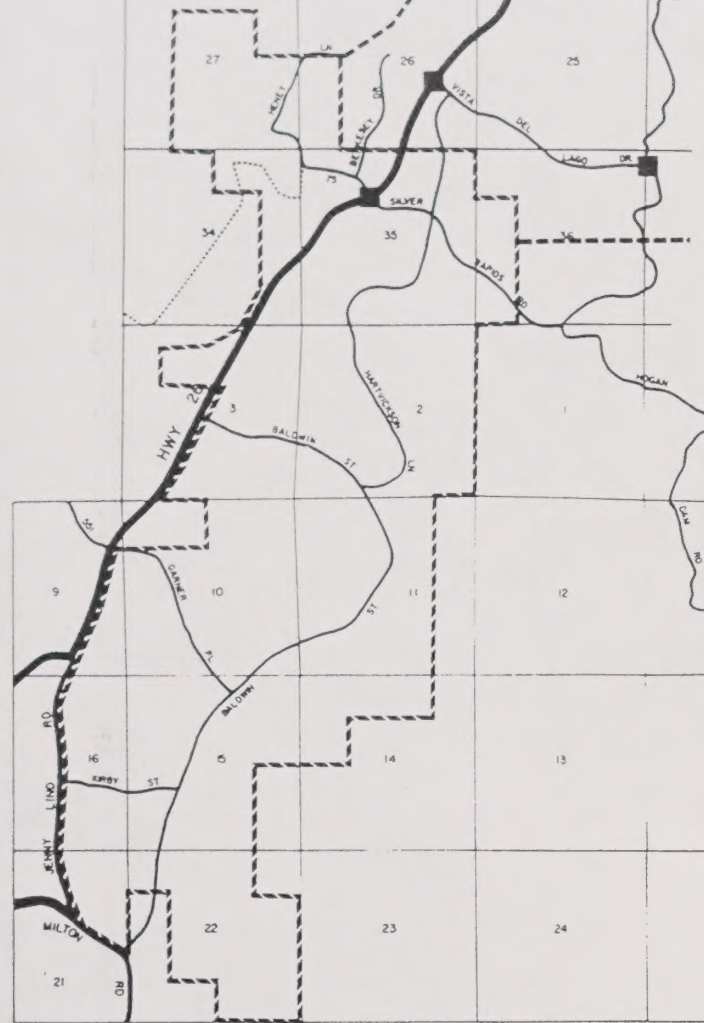


A WEST POINT



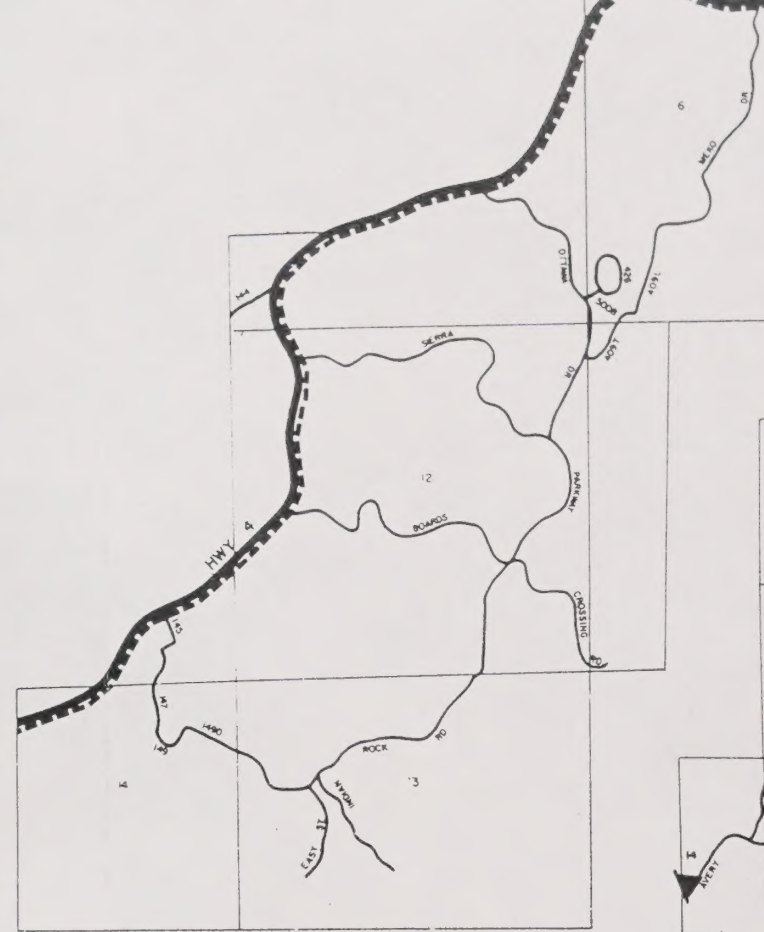
H VALLECITO

400 ANGELS RD
401 HUNTERS PEAK RD
402 CARSON ST
403 CHURCH ST
404 IN VALLECITO
405 GARDEN LN
406 VALLECITO BYPASS RD



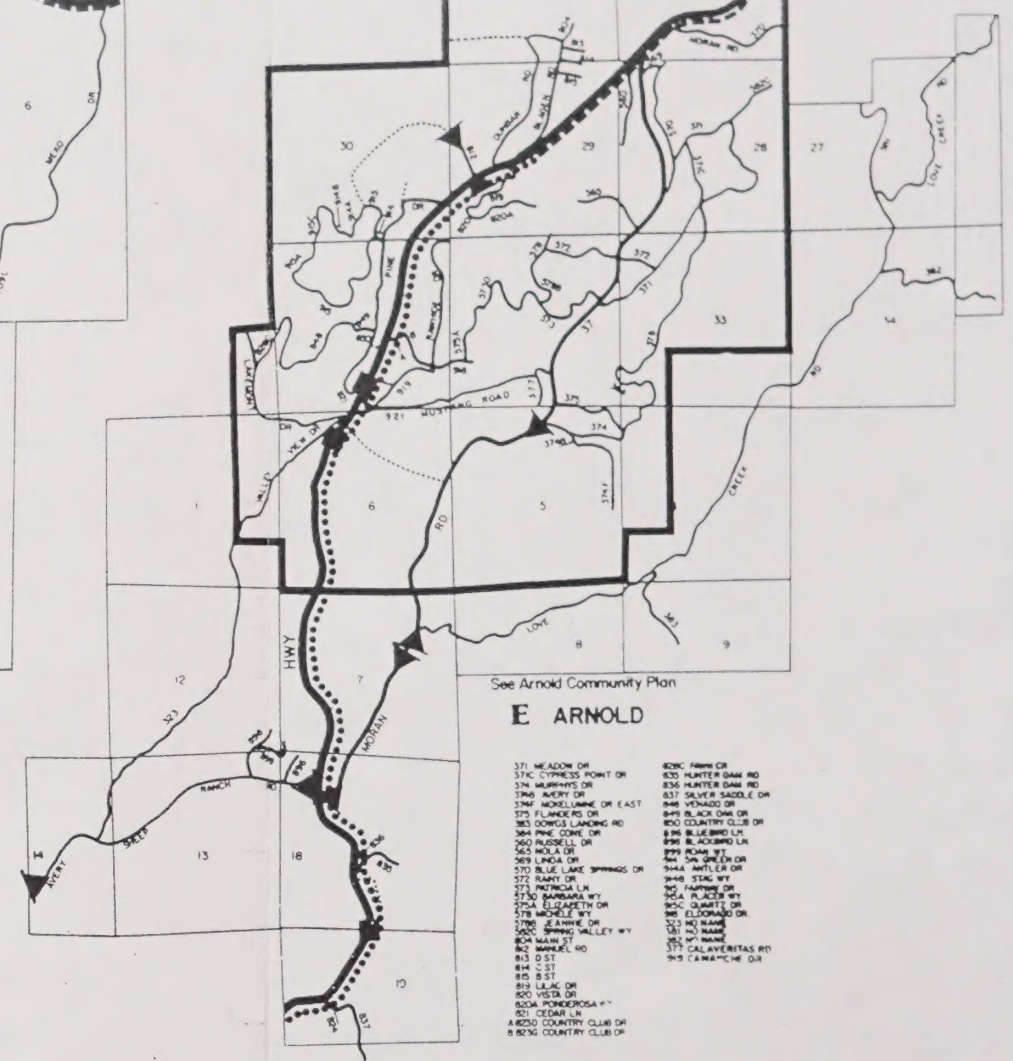
I RANCHO CALAVERAS/JENNY LIND

75 SILVER RAMP RD
99 OLIVE ORCHARD RD



D DORRINGTON

44 SUMMIT LEVEL RD
45 BIG TREES VILLAGE DR
46 CHEYENNE WY
47 ANCHOR RD
48 SOLAR TR
49 SHOSHONE DR
50 WATCH TOWER
51 BLACKFOOT DR
52 MOUNTAIN LN



See Arnold Community Plan

E ARNOLD

371 MEADOW DR
372 CYPRESS POINT DR
373 ARROYO DR
374 MONTELUPO DR EAST
375 FLANDERS DR
376 DOWNS LANDING RD
377 PINE CREEK DR
378 RUSSELL DR
379 HOLLA DR
380 LINDA DR
381 BLUE LAKE SPRINGS DR
382 RANTY DR
383 PATRICIA LN
384 BARRAGAN WY
385 ELIZABETH DR
386 MICHELLE WY
387 JEANNE DR
388 SPRING VALLEY WY
389 MAIN ST
390 MARQUEL RD
391 O ST
392 S ST
393 E ST
394 LILAC DR
395 VISTA DR
396 POMEROSA WY
397 CEDAR LN
398 COUNTRY CLUB DR
399 COUNTRY CLUB DR
400 HUNTER DAM RD
401 HUNTER DAM RD
402 SILVER SADDLE DR
403 VENADO DR
404 BLISS DR
405 COUNTRY CLUB DR
406 BLUE BIRD LN
407 BL JACKSON LN
408 STAG WY
409 FAIRMOR DR
410 PALACE WY
411 QUARTZ DR
412 ELIZABETH DR
413 WY
414 WY
415 CALAVERTAS RD
416 CAMACHE DR



F MURPHYS

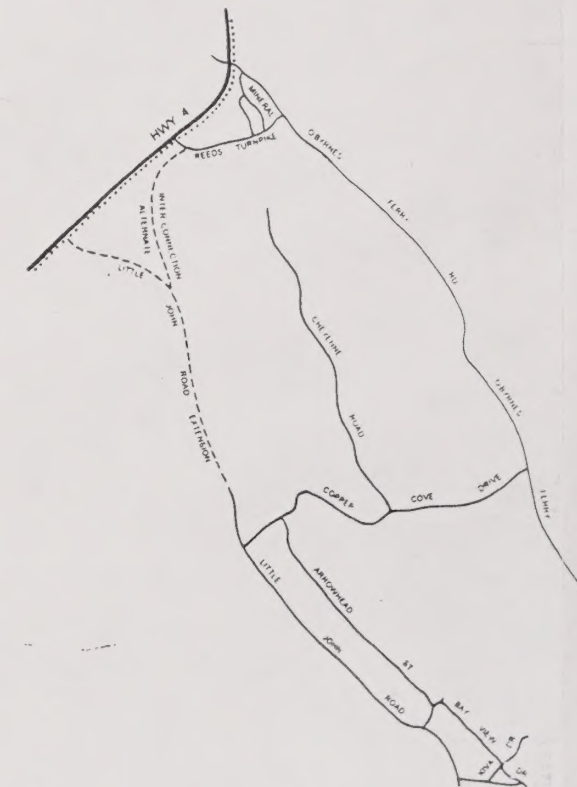
38 MAIN ST
39 ROARING CAMP RD
40 COYOTE DR
41 FRENCH GULCH RD
42 SCOTT ST
43 WOODLAND DR
4028 AMBER CT
4029 SKUNK RANCH RD
4030 ALGERS ST
4031 HITCHER ELY AVE
4032 APPLE GLOSSOM DR
4033 SHADY GROVE LN
840 SURVEY LN
841 CHURCH ST



See San Andreas Community Plan

B SAN ANDREAS

14 MOUNTAIN RANCH RD
15 W MURRAY CREEK RD
737 TREAT AVE
746 COURT ST



G COPPEROPOLIS

C COPPER COVE

Transportation Plan

Map 4

Scheduled and Proposed Improvements

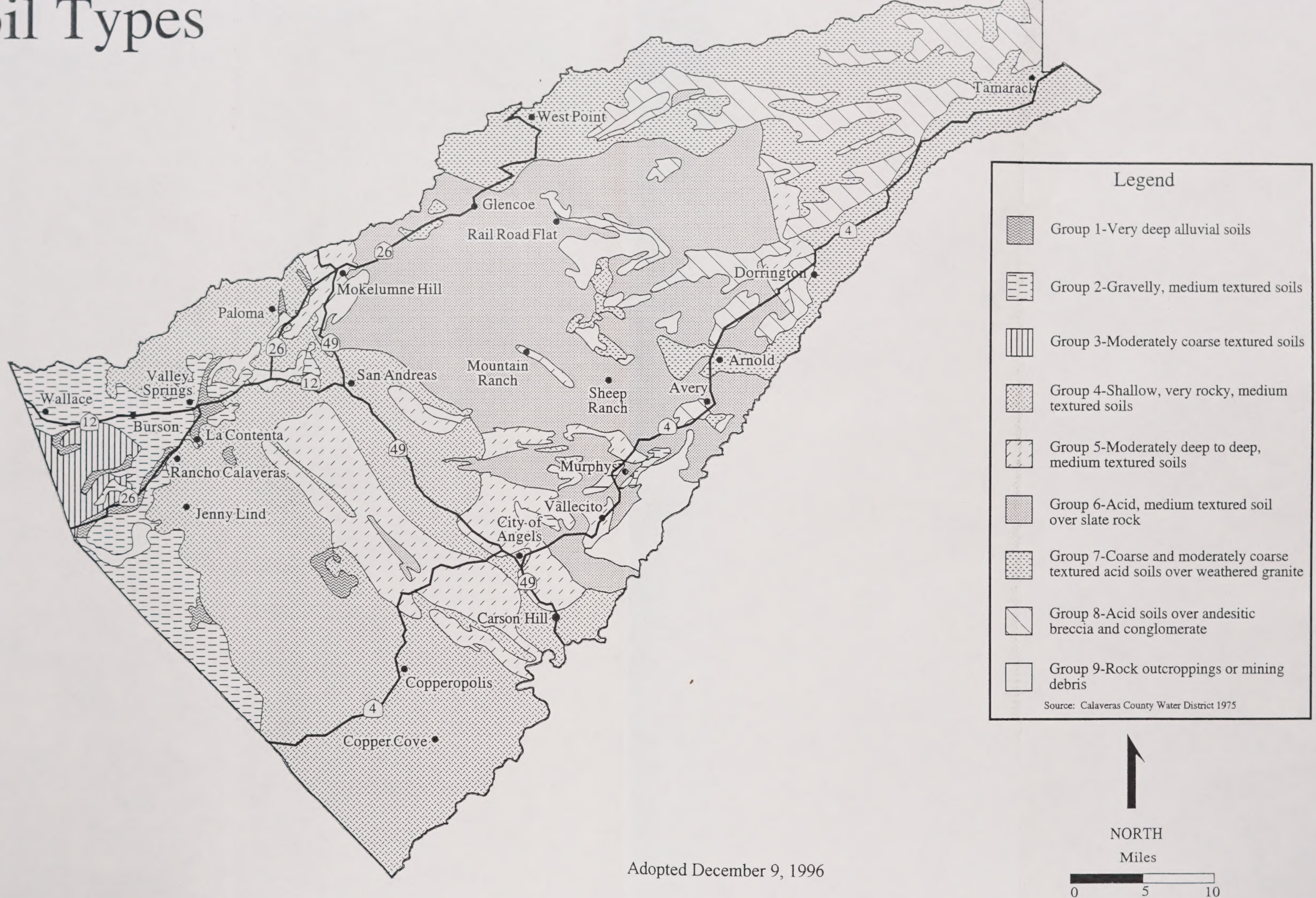
- Start/end of realignment or reconstruction
- Passing lane
- Turn lane

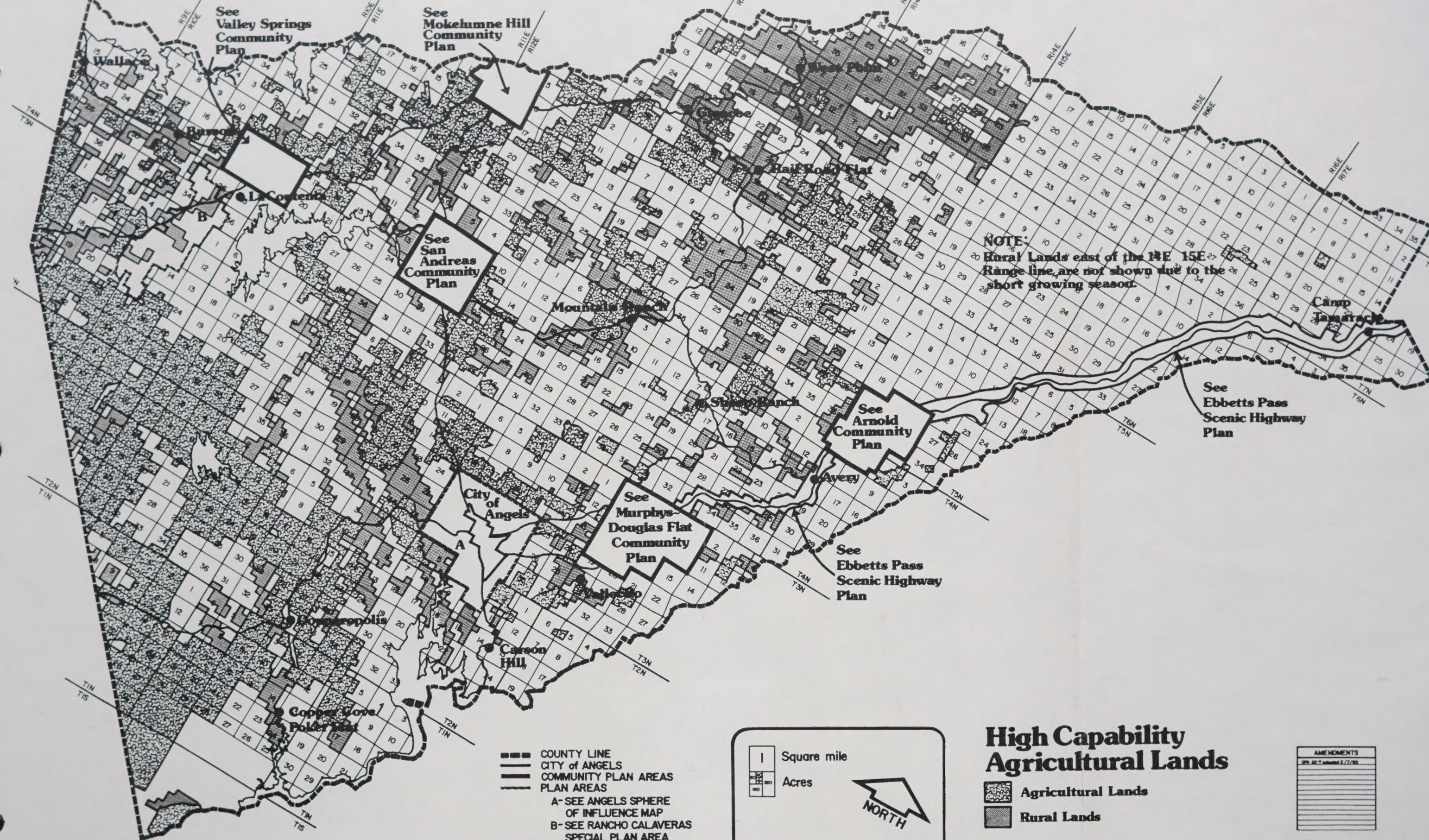
- Community Plan boundary
- Community Center boundary
- Special Plan boundary

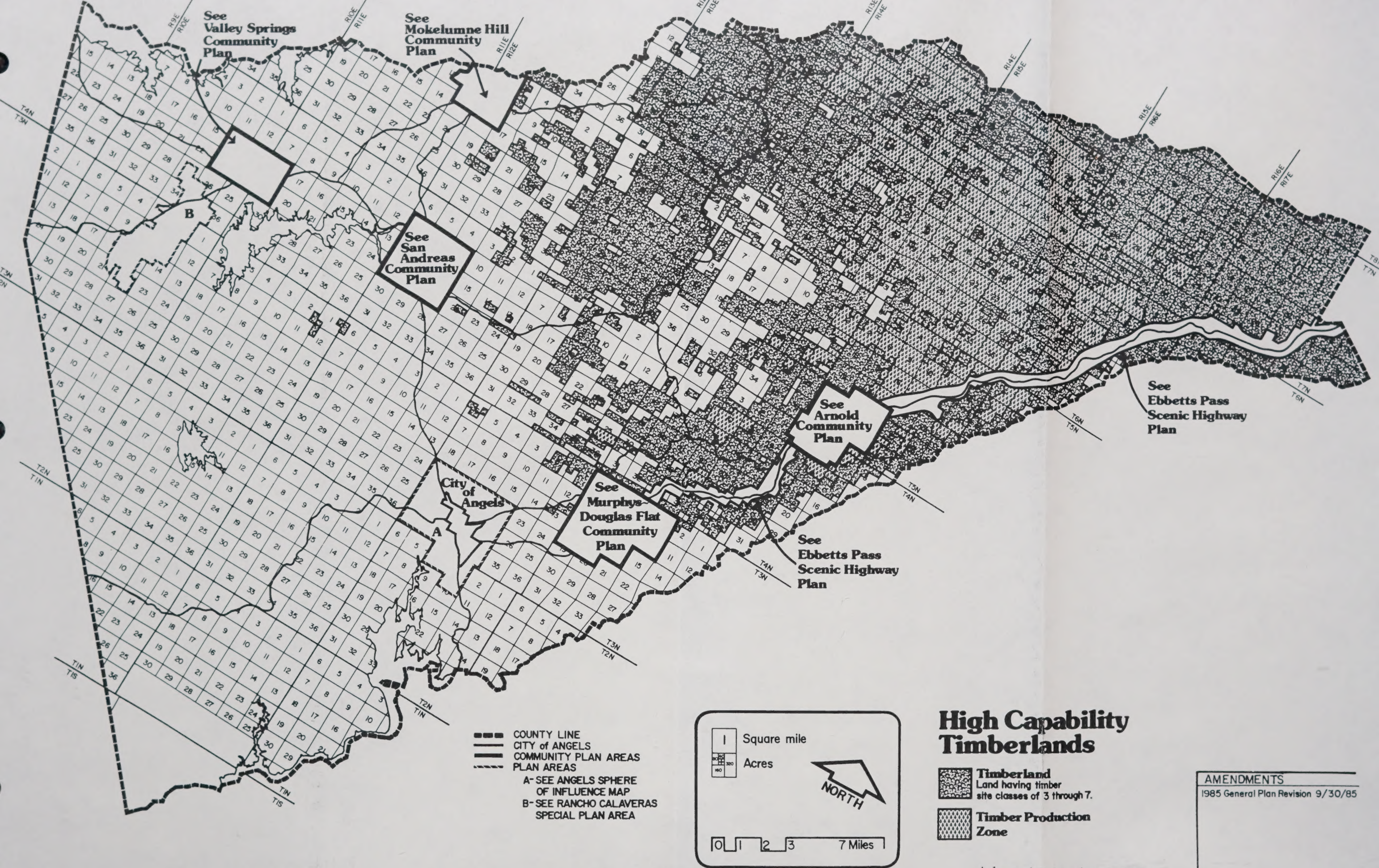
Adopted December 9, 1996



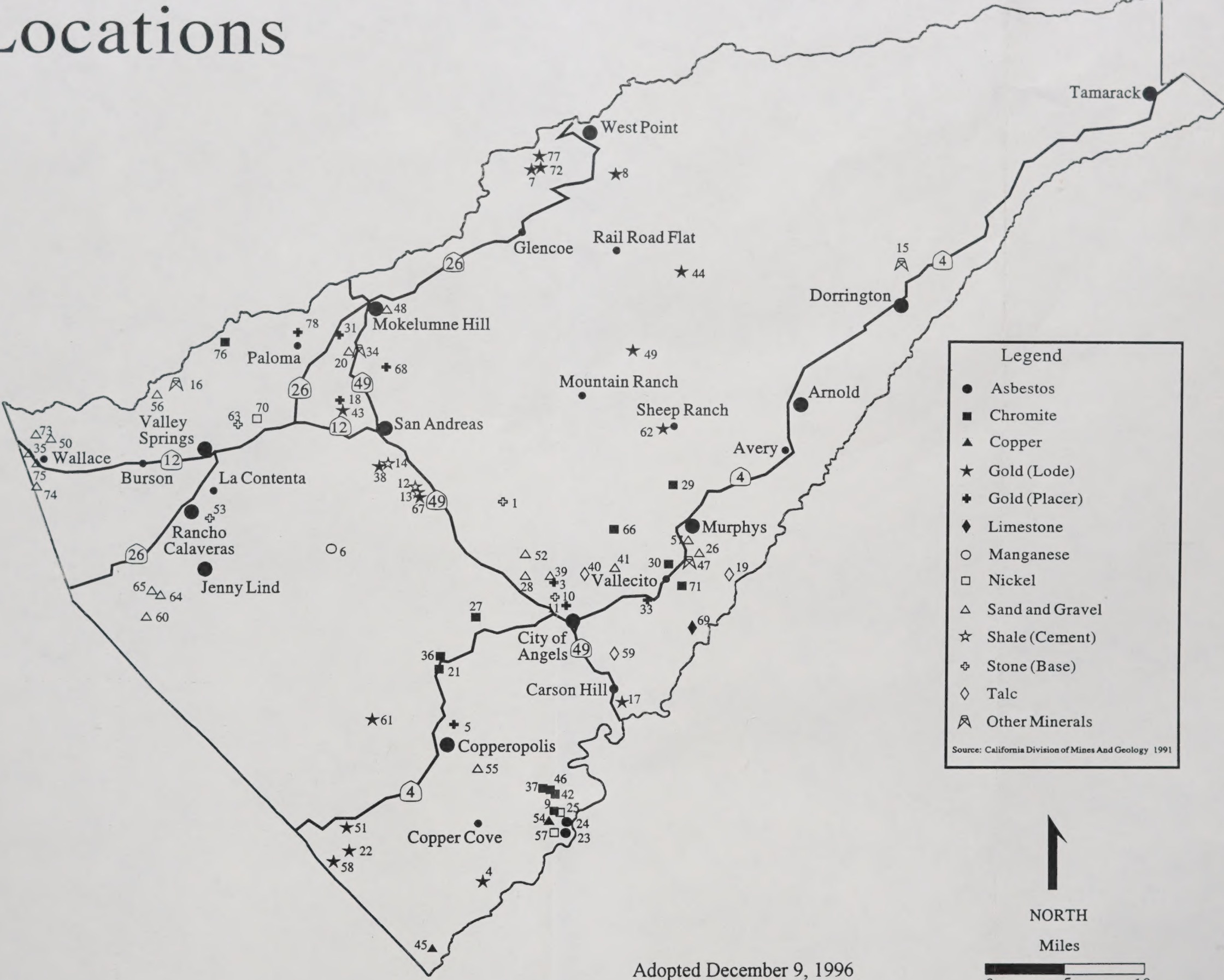
Soil Types



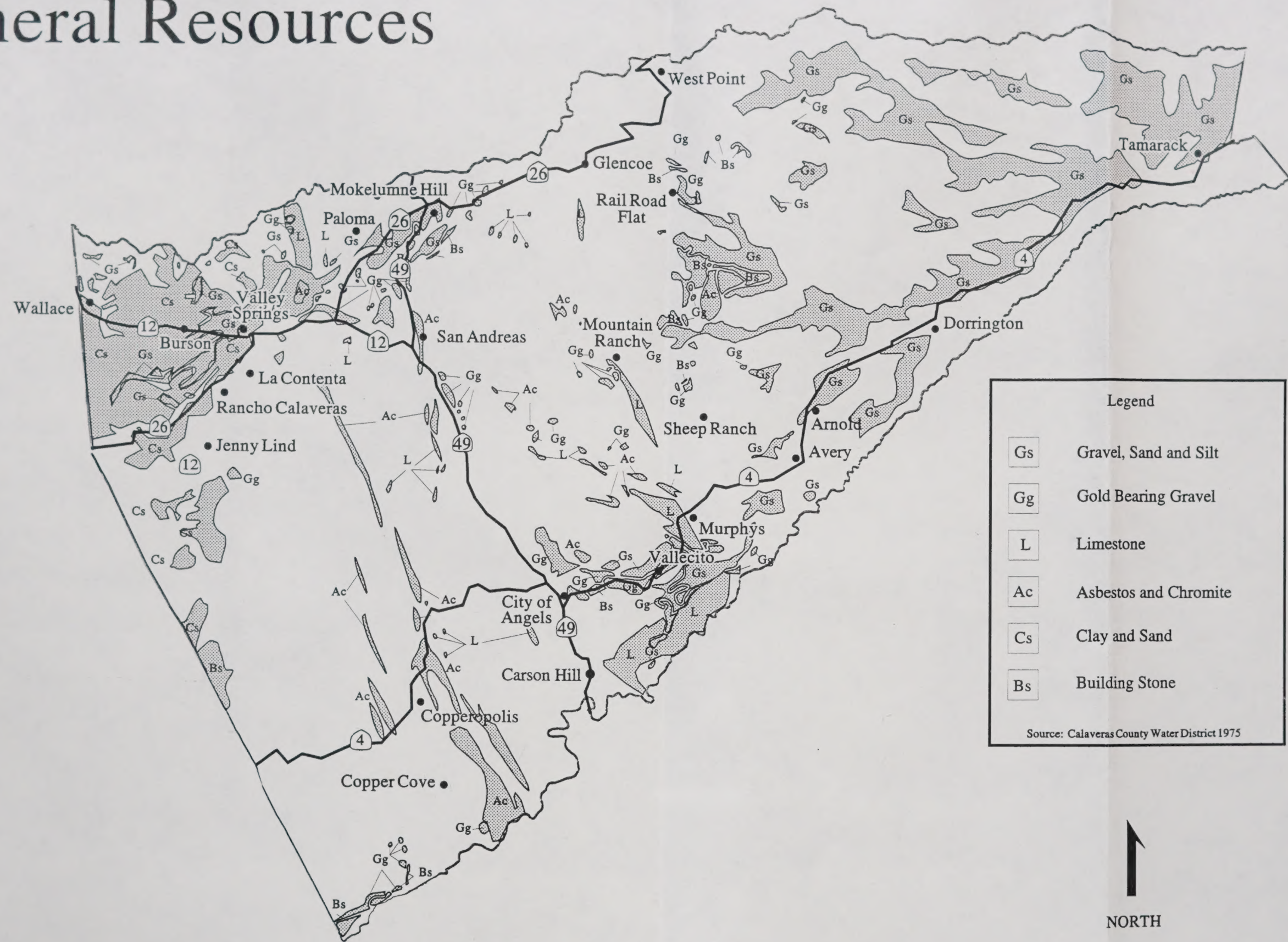




Mine Locations

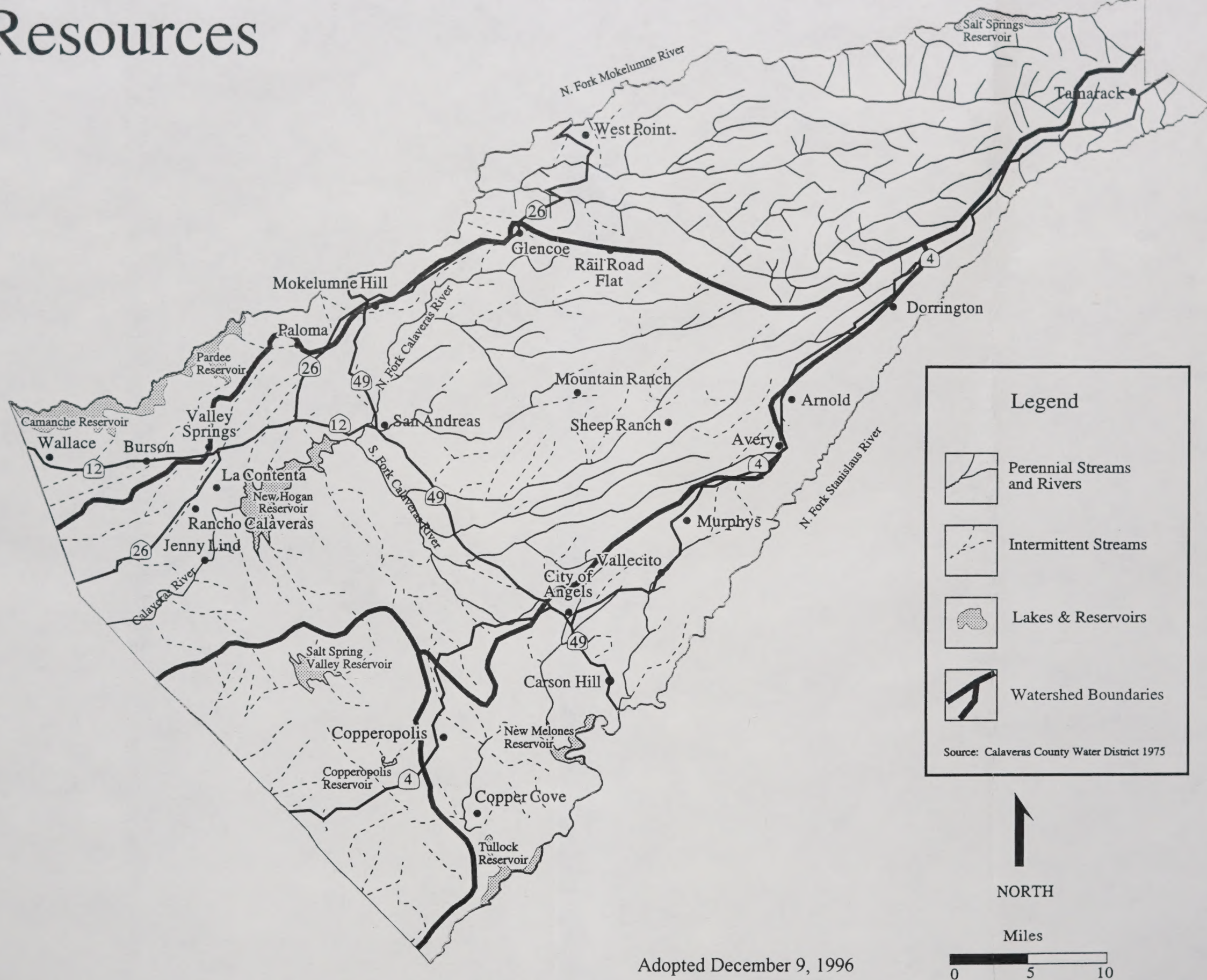


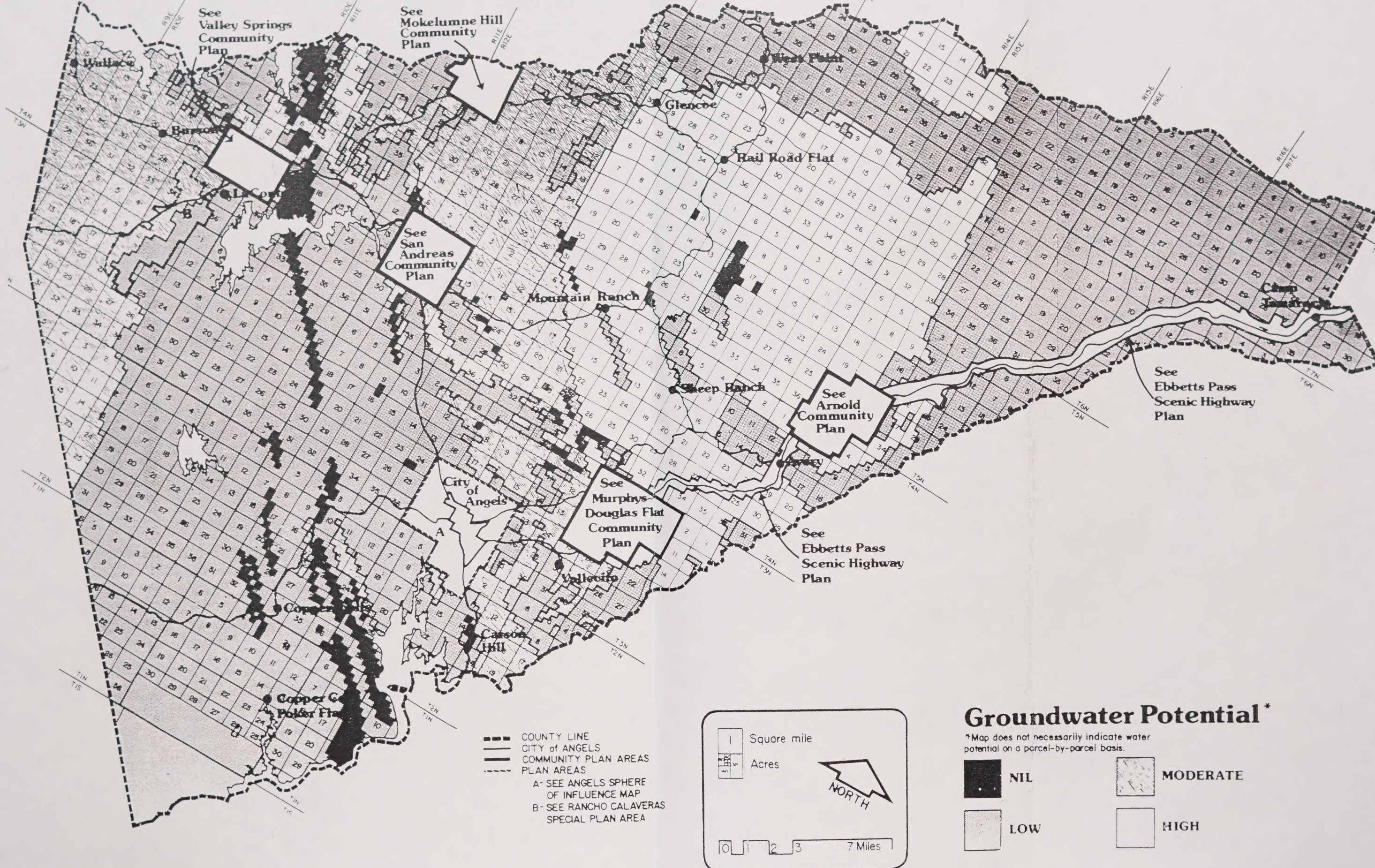
Mineral Resources



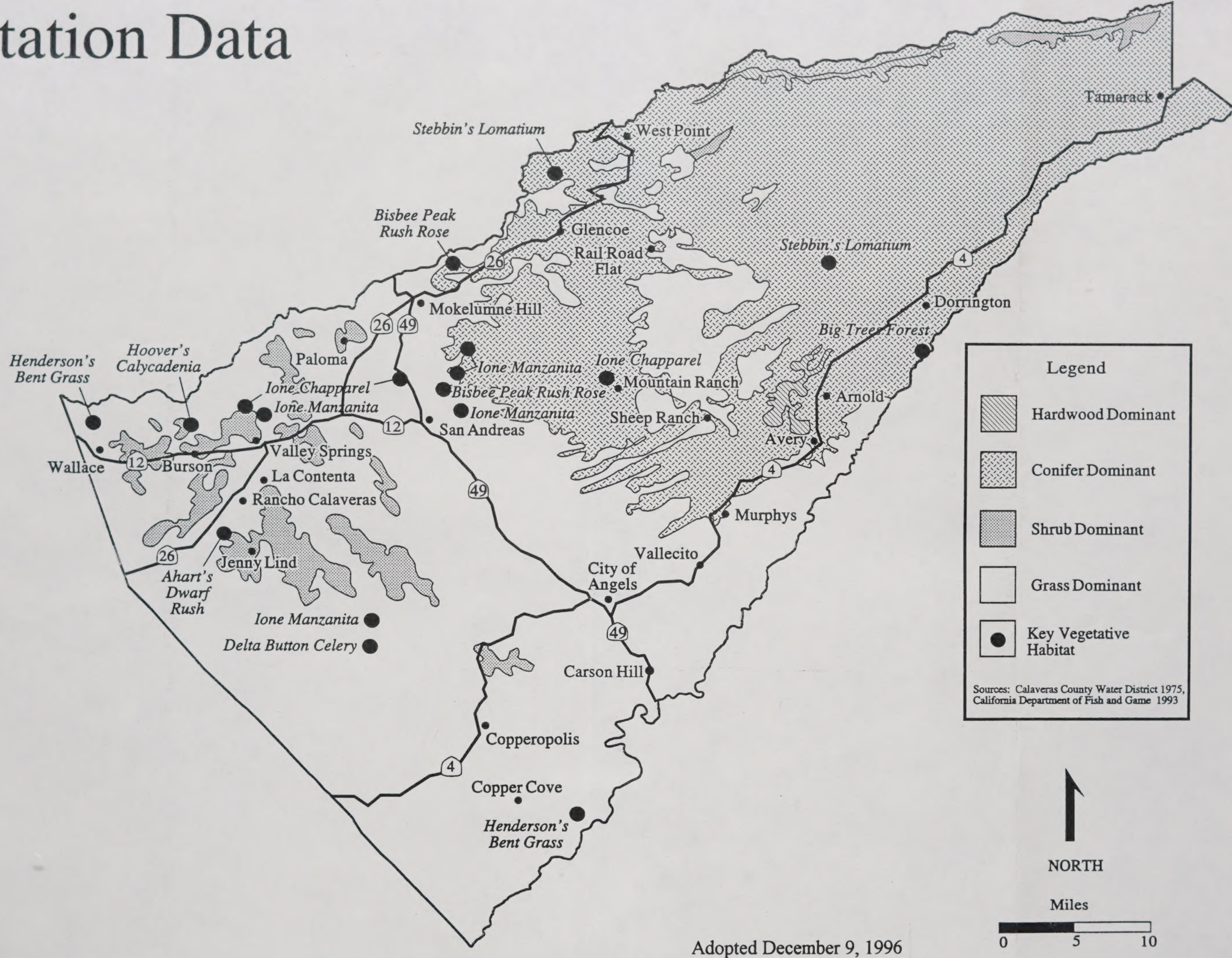
Adopted December 9, 1996

Water Resources

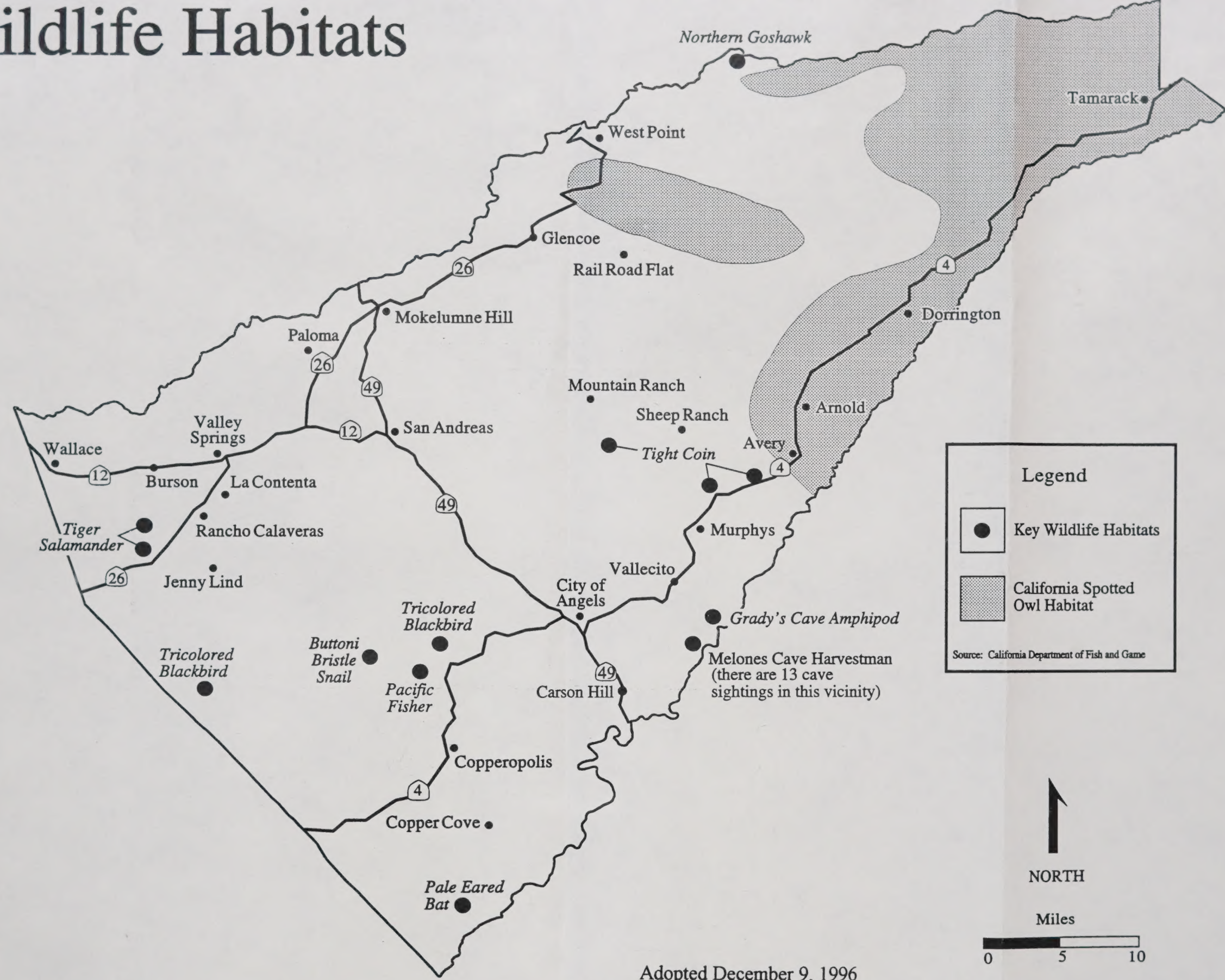


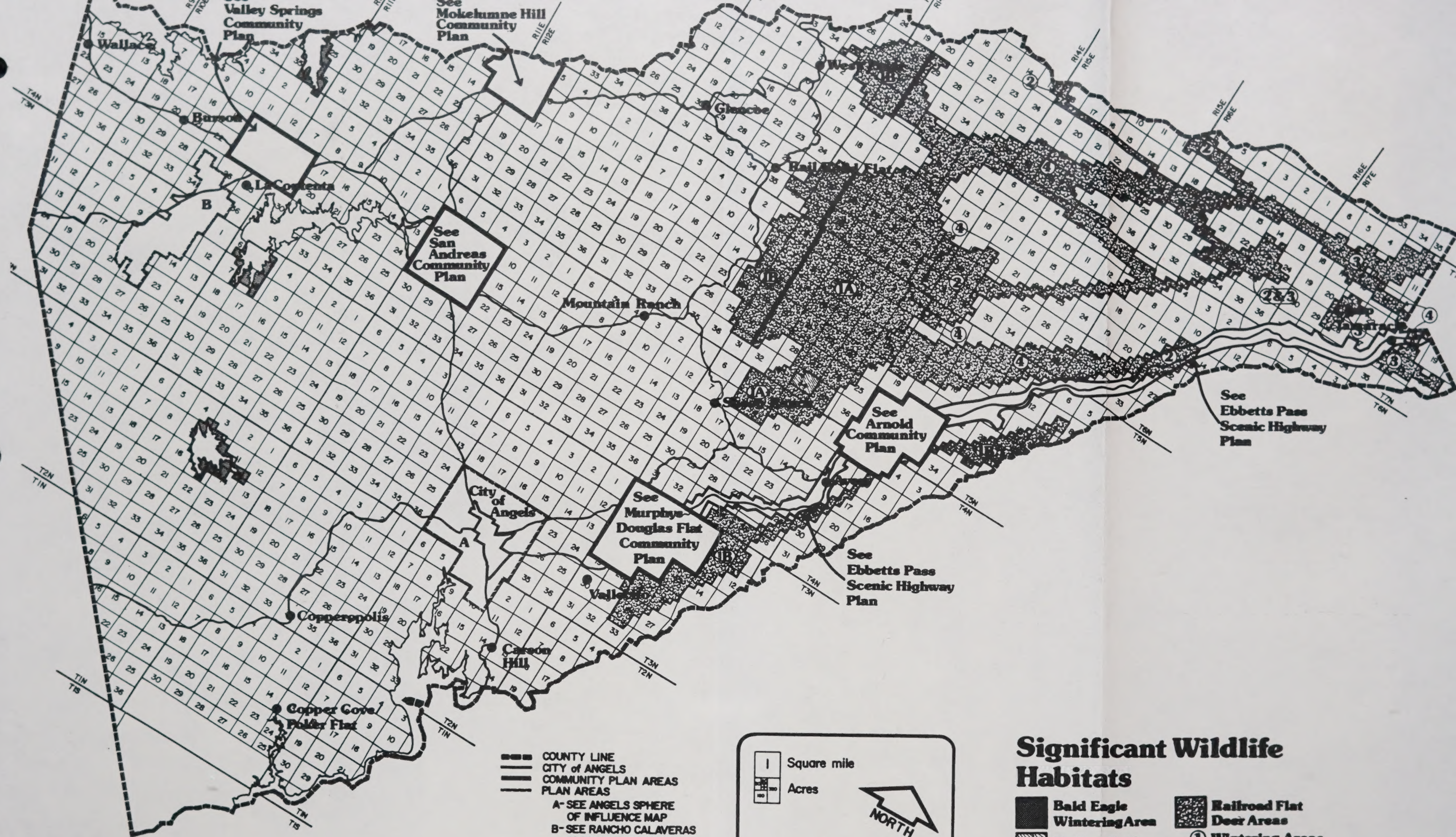


Vegetation Data

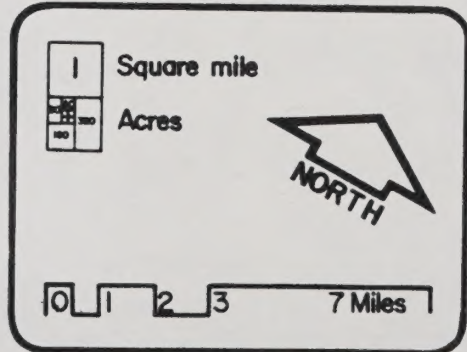


Key Wildlife Habitats





COUNTY LINE
 CITY OF ANGELS
 COMMUNITY PLAN AREAS
 PLAN AREAS
 A- SEE ANGELS SPHERE OF INFLUENCE MAP
 B- SEE RANCHO CALAVERAS SPECIAL PLAN AREA

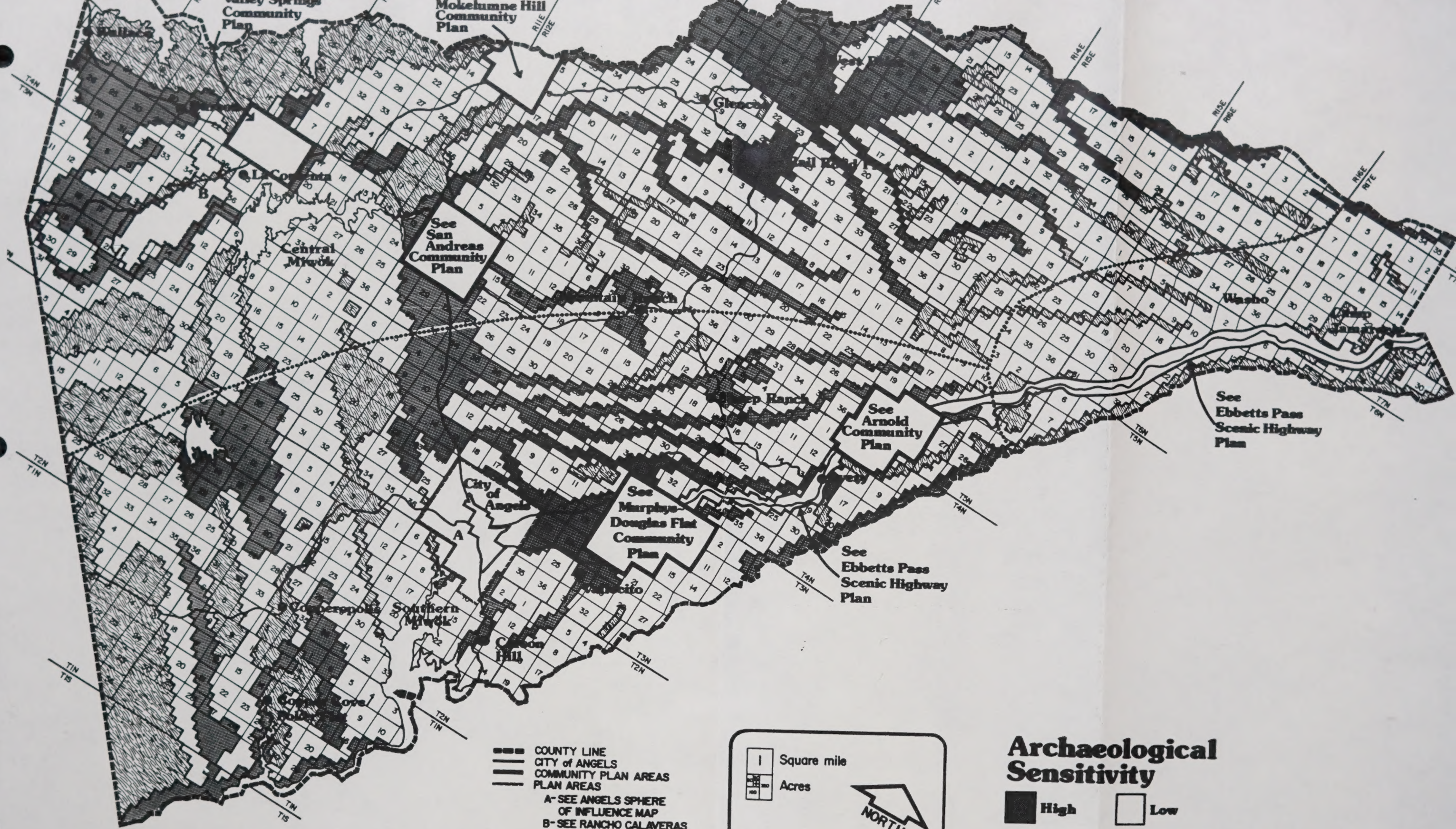


CALAVERAS COUNTY GENERAL PLAN REVISION 1985

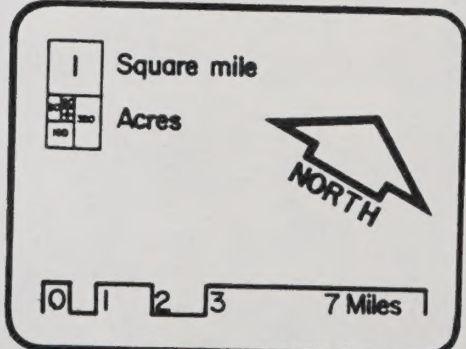
Significant Wildlife Habitats

- Bald Eagle Wintering Area
- Golden Eagle Nesting Area
- Railroad Flat Deer Areas
- ① Wintering Areas
- ①A Protected Area
- ①B Unprotected Area
- ② Fall Holding Areas
- ③ Fawning Areas
- ④ Migration Routes

Adopted December 9, 1996

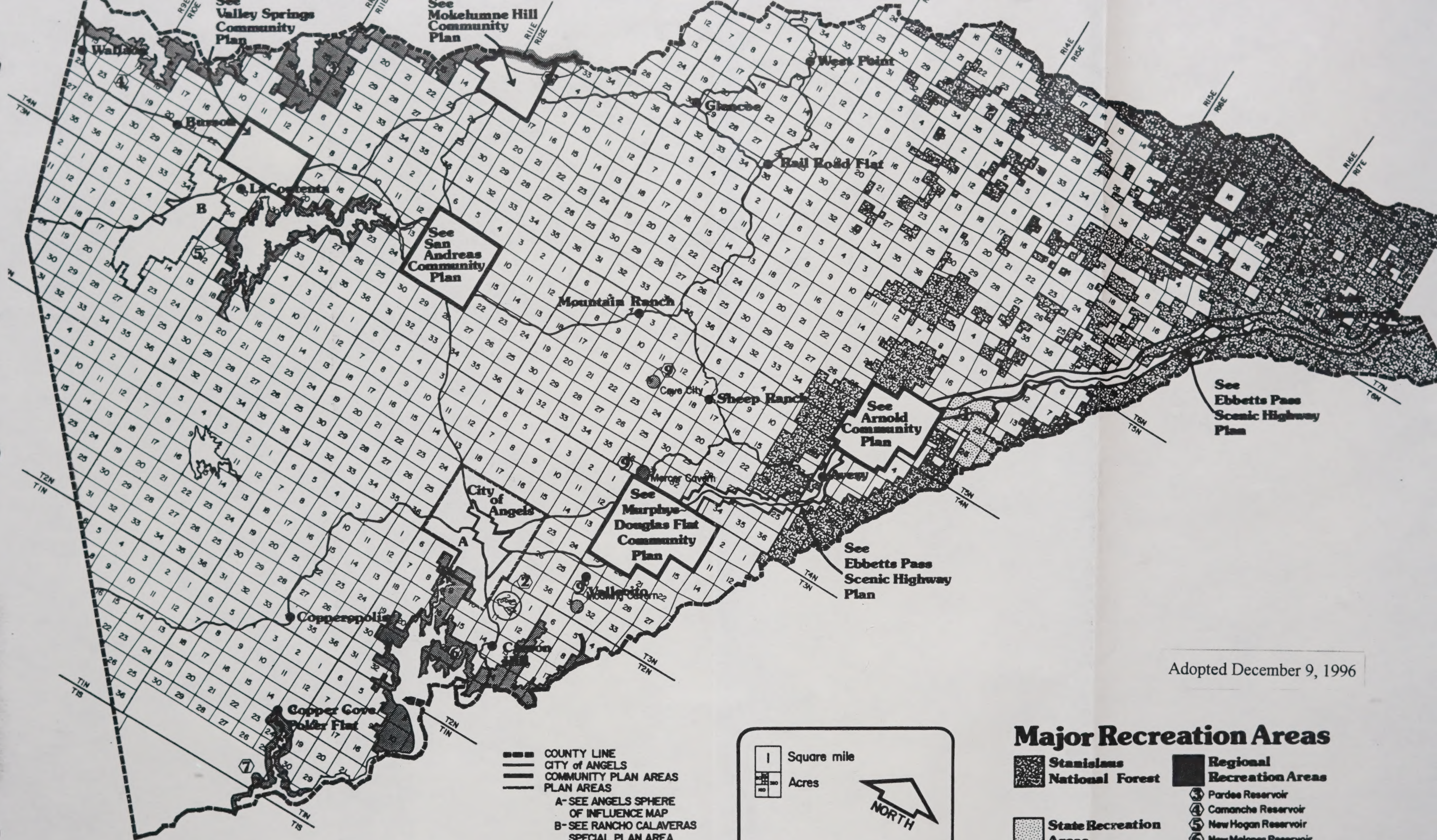


COUNTY LINE
 CITY OF ANGELS
 COMMUNITY PLAN AREAS
 PLAN AREAS
 A- SEE ANGELS SPHERE OF INFLUENCE MAP
 B- SEE RANCHO CALAVERAS SPECIAL PLAN AREA



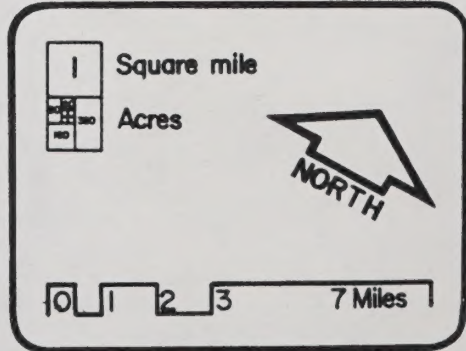
Archaeological Sensitivity

High
 Medium
 Low
 Approx. Territory Boundary



Adopted December 9, 1996

- - - COUNTY LINE
 - - - CITY OF ANGELS
 - - - COMMUNITY PLAN AREAS
 - - - PLAN AREAS
 A- SEE ANGELS SPHERE OF INFLUENCE MAP
 B- SEE RANCHO CALAVERAS SPECIAL PLAN AREA

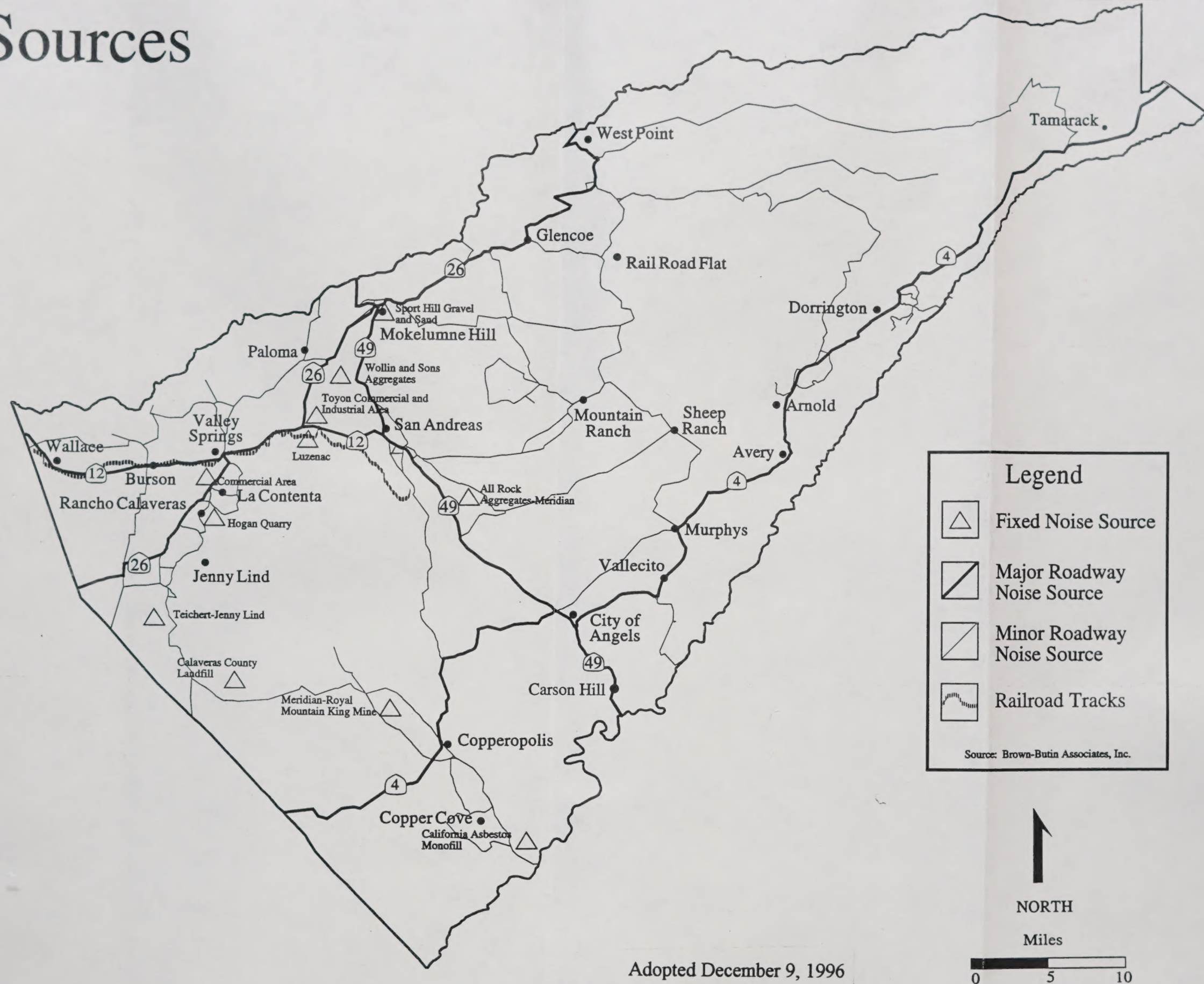


Major Recreation Areas

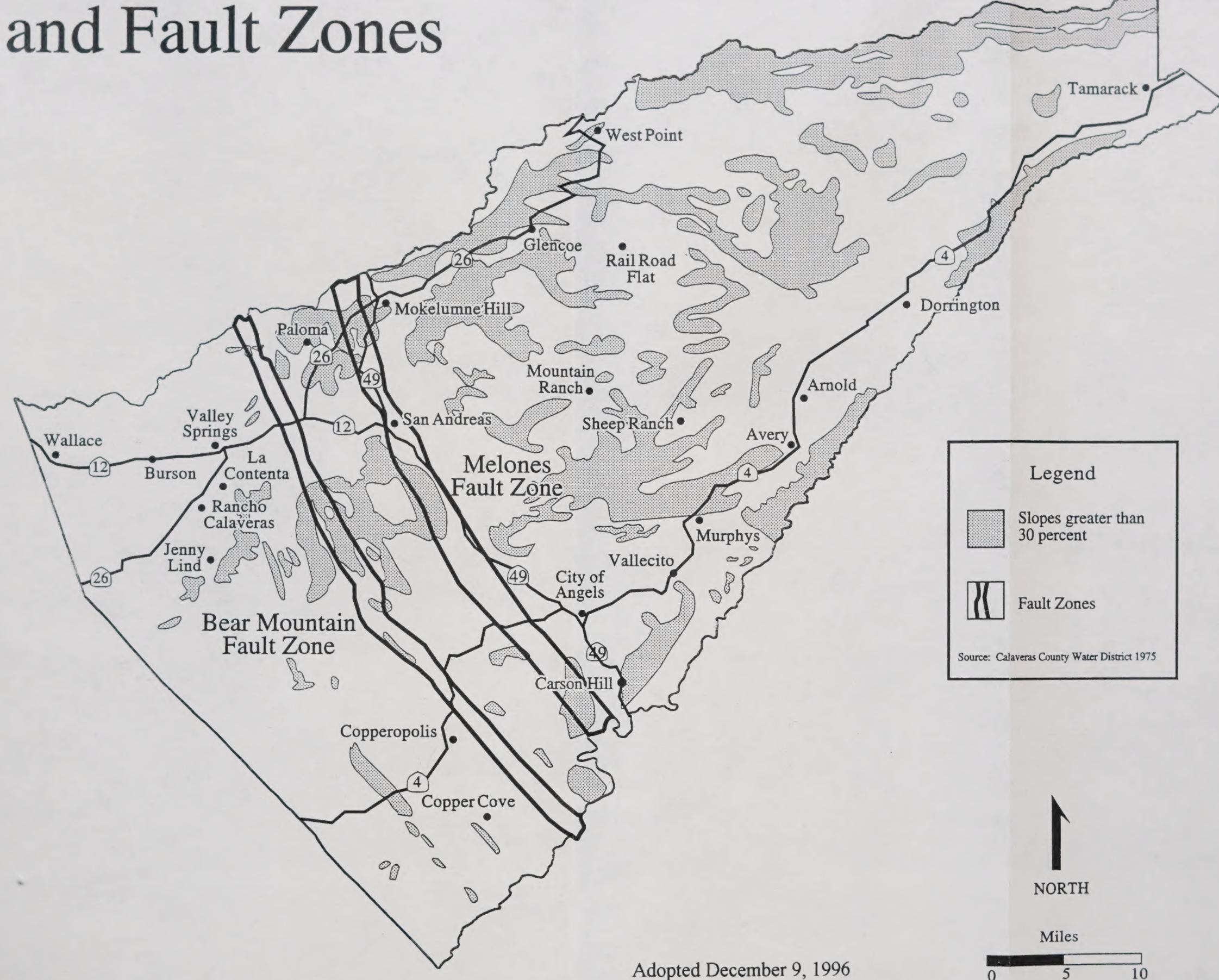
- Stanislaus National Forest**
- State Recreation Areas**
 - ① Big Trees State Park
 - ② Frogtown Fair Grounds
- Regional Recreation Areas**
 - ③ Pardee Reservoir
 - ④ Camanche Reservoir
 - ⑤ New Hogan Reservoir
 - ⑥ New Melones Reservoir
 - ⑦ Lake Tulloch
 - ⑧ White Water River
 - ⑨ Major Caves

Local Recreation Areas (not shown)

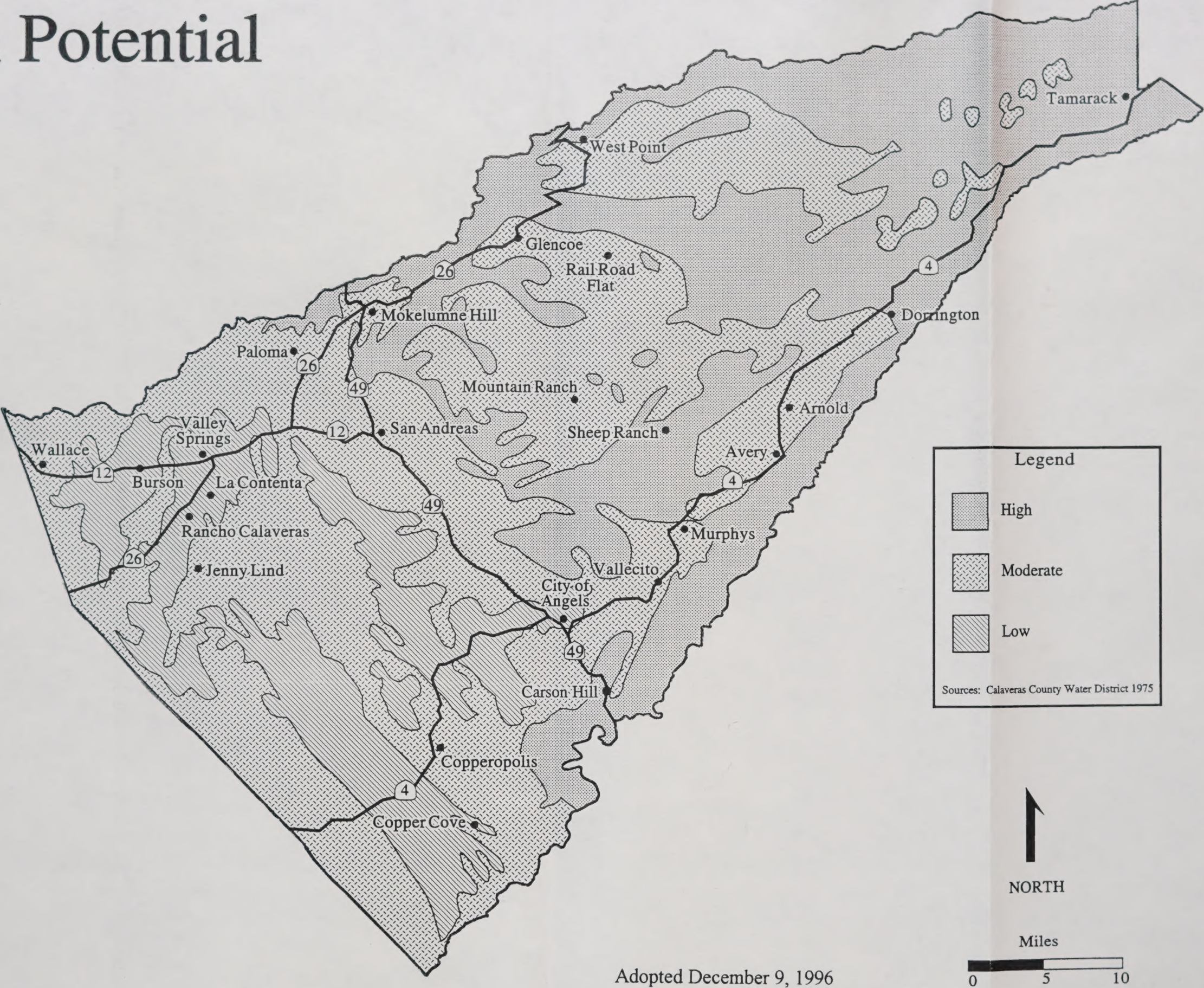
Noise Sources



Slopes and Fault Zones

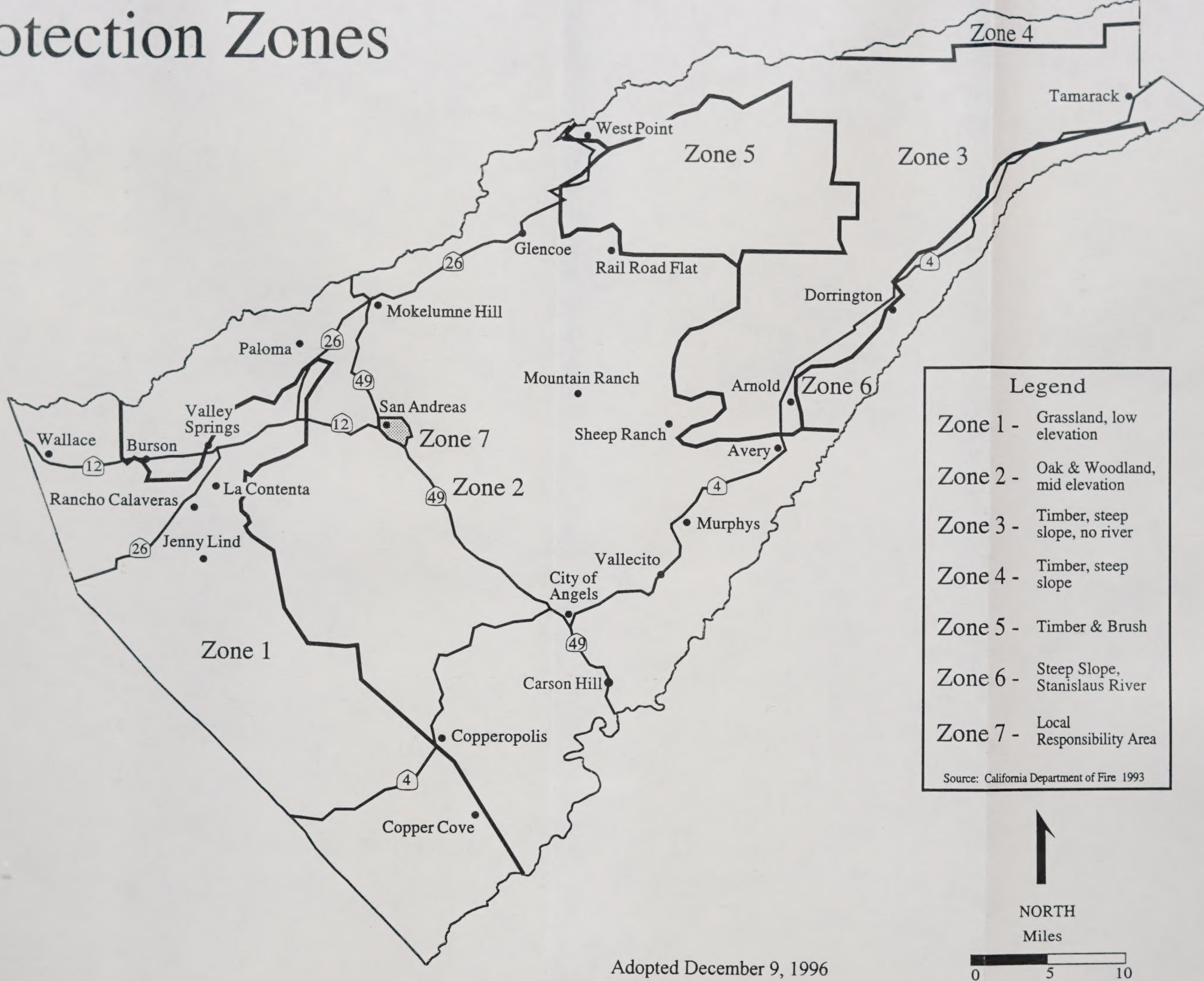


Erosion Potential

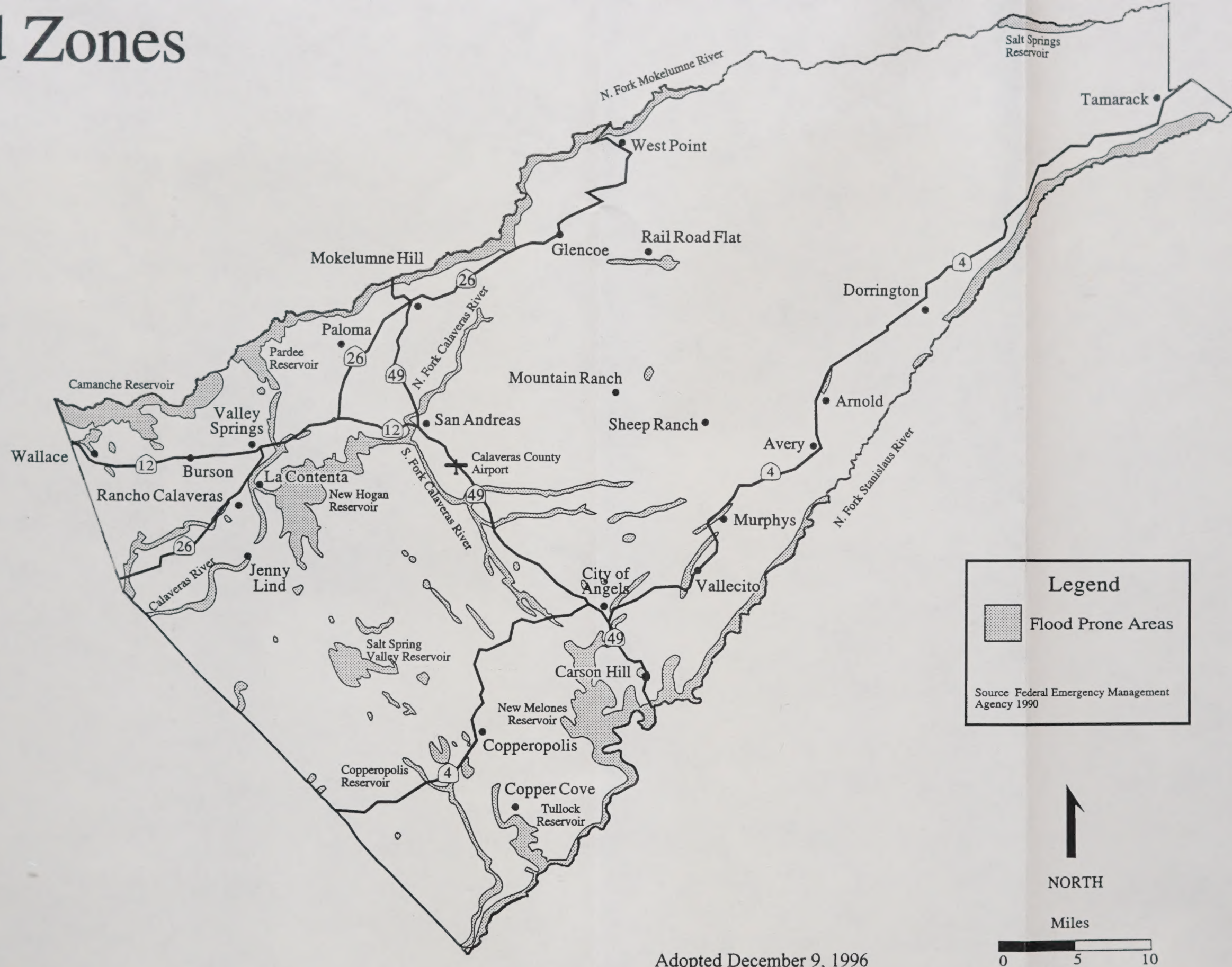


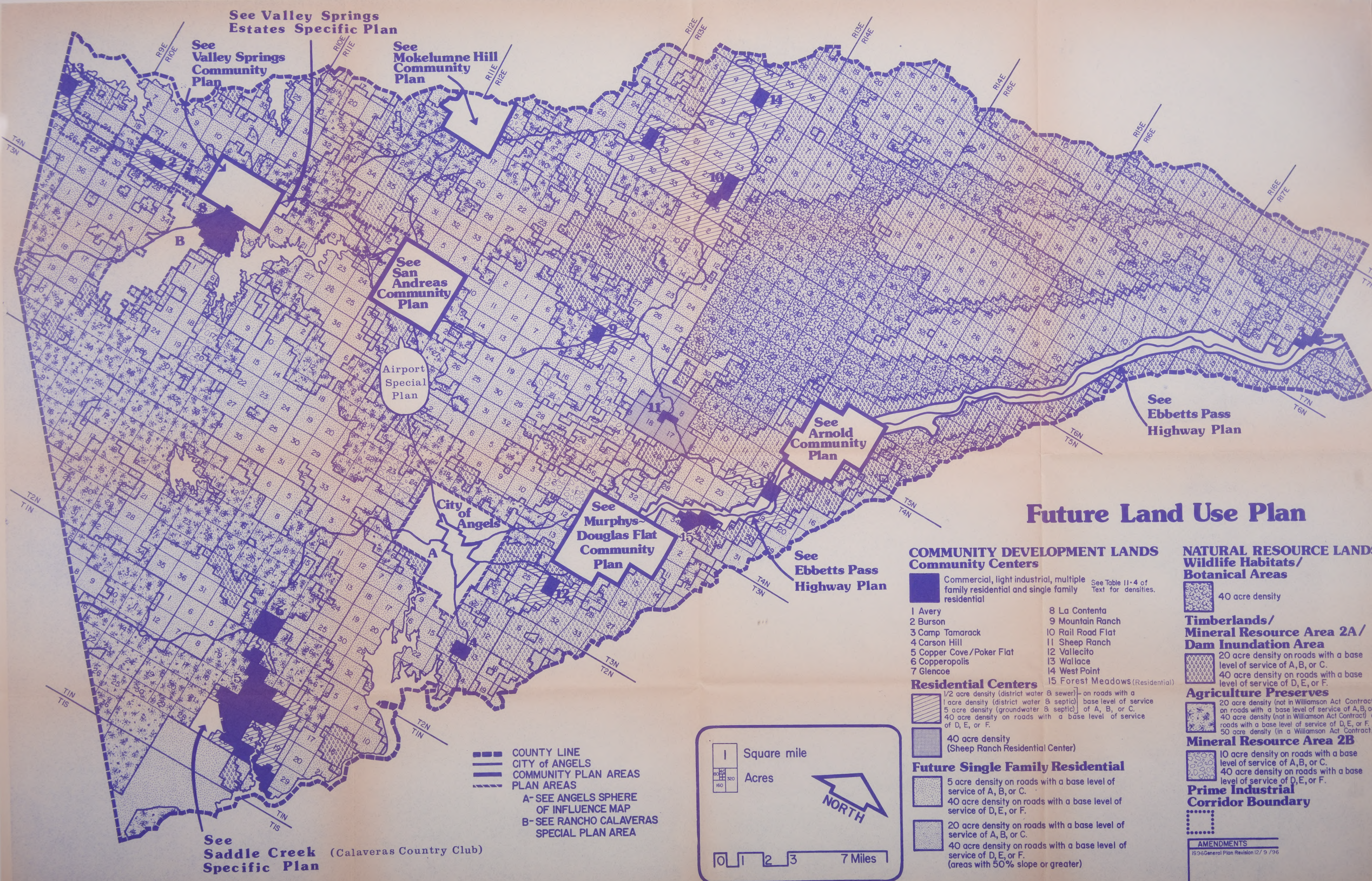
Adopted December 9, 1996

Fire Protection Zones



Flood Zones





See Valley Springs Estates Specific Plan

See Valley Springs Community Plan

See Mokelumne Hill Community Plan

See San Andreas Community Plan

Airport Special Plan

See Arnold Community Plan

See Ebbetts Pass Highway Plan

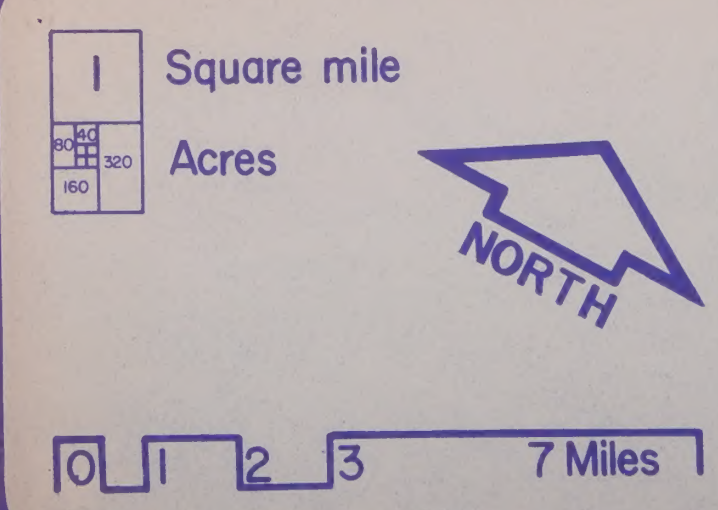
See Murphys Douglas Flat Community Plan

See Ebbetts Pass Highway Plan

See Saddle Creek Specific Plan (Calaveras Country Club)

Future Land Use Plan

--- COUNTY LINE
--- CITY OF ANGELS
--- COMMUNITY PLAN AREAS
--- PLAN AREAS
A-SEE ANGELS SPHERE OF INFLUENCE MAP
B-SEE RANCHO CALAVERAS SPECIAL PLAN AREA



COMMUNITY DEVELOPMENT LANDS

Community Centers
Commercial, light industrial, multiple family residential and single family residential See Table 11-4 of Text for densities.

- | | |
|--------------------------|---------------------------------|
| 1 Avery | 8 La Contenta |
| 2 Burson | 9 Mountain Ranch |
| 3 Camp Tamarack | 10 Rail Road Flat |
| 4 Carson Hill | 11 Sheep Ranch |
| 5 Copper Cove/Poker Flat | 12 Vallecito |
| 6 Copperopolis | 13 Wallace |
| 7 Glencoe | 14 West Point |
| | 15 Forest Meadows (Residential) |

Residential Centers
1/2 acre density (district water & sewer) - on roads with a 1 acre density (district water & septic) base level of service of A, B, or C.
5 acre density (groundwater & septic) of A, B, or C.
40 acre density on roads with a base level of service of D, E, or F.
40 acre density (Sheep Ranch Residential Center)

Future Single Family Residential

5 acre density on roads with a base level of service of A, B, or C.
40 acre density on roads with a base level of service of D, E, or F.
20 acre density on roads with a base level of service of A, B, or C.
40 acre density on roads with a base level of service of D, E, or F. (areas with 50% slope or greater)

NATURAL RESOURCE LANDS

Wildlife Habitats/ Botanical Areas
40 acre density

Timberlands/ Mineral Resource Area 2A/ Dam Inundation Area
20 acre density on roads with a base level of service of A, B, or C.
40 acre density on roads with a base level of service of D, E, or F.

Agriculture Preserves
20 acre density (not in Williamson Act Contract) on roads with a base level of service of A, B, or C.
40 acre density (not in Williamson Act Contract) on roads with a base level of service of D, E, or F.
50 acre density (in a Williamson Act Contract)

Mineral Resource Area 2B
10 acre density on roads with a base level of service of A, B, or C.
40 acre density on roads with a base level of service of D, E, or F.

Prime Industrial Corridor Boundary

AMENDMENTS	
1596	General Plan Revision 12/9/96

**CALAVERAS COUNTY
GENERAL PLAN
APPENDICES**

December 9, 1996

CHAMBERLAIN
GENERAL PLAN
1917

1917

II

LAND USE ELEMENT APPENDIX

11

LAURENCE T. BROWN

Arnold Community Plan

CHART C

CONSISTENT ZONES, POPULATION DENSITY, BUILDING INTENSITY

Land use designation	Consistent Zone	Dwellings per acre	Persons per acre
Single family residential	R1	1	2.52
Multiple family residential	R1, R2, R3	1*	2.52
		0.25*	6.18
		0.16*	15.12
Rural residential	RR-5	5*	0.50
	RR	1*	2.52
Recreation	REC, PS	1/lot	2.52/lot
Commercial	C1, C2, CP, RC	lot coverage per approved plot plan	
Manufacturing/industrial	M1	75% lot coverage**	
Forestry	GF	20	0.13
	TP	160	0.001
Planned Unit Development	PD combining zone		
Design Review	DC combining zone		
Scenic Highway	PD or DC		
Commercial - Multiple family	R1, R2, R3, C1, C2, CP, RC	Same densities are applied here as under the residential and commercial densities listed above	

* - densities indicated in "units per acre" on the land use map.

** - residential use prohibited except for one caretaker mobile home per lot.

Ebbetts Pass Highway Plan

Zoning consistency

Table 1

<u>Land Use Designation</u>	<u>Consistent Zone</u>
Community Center	GF, TP, A1, AP, RA, RR, R1, R2, R3, RC, CP, C1, C2, M1, RM, M4, PS, REC
Resort Center	GF, TP, A1, AP, RA, RR, R1, REC, PS
Recreation	GF, TP, A1, AP, RA, RR, R1, REC, PS
Commercial	RR, R1, RC, C1, C2, CP, RM, PS
Multiple-Family Residential	RR, R1, R2, R3, PS
Single-Family Residential	GF, TP, A1, AP, RA, RR, R1, PS, RM
Resource Production	GF, TP, A1, AP, PS, RM
<u>Combining Zones</u>	
Planned Development (PD)	RA, RR, R1, R2, R3, RC, RM, C1, C2, CP, M1, M2, M4, REC
Airport zones (AAX, HL)	GF, TP, A1, AP, RA, RR, REC
Mineral Extraction (ME)	GF, TP, A1, AP, RA
Environmental Protection (EP)	All base zones
Mobile Home (MH)	(parcels of less than 4.75 acres) RR, R1, R2, R3, REC

3.5 Population density and building intensity

State law requires that general plans include population density and building intensity information. The two terms are defined in section 3.1. On the following chart, the information is displayed for easy comparison and explanation. "Persons" uses the 1980 Census data of 2.45 persons per household to project the maximum population per acre at full development. "Acres" represents the number of acres of land required for one dwelling unit. For comparison, there is a number shown in parenthesis (2), (6), (12); this translates to the number of residential units per acre that could be permitted.

Zoning Consistency

Table 2
Density and Intensity

District	Public water, sewer		Public water, septic		Well, septic	
	Density	Intensity	Density	Intensity	Density	Intensity
	persons	Acres	persons	Acres	Persons	acres
A1	0.13	20	0.13	20	0.13	20
AP	0.05	50	0.05	50	0.05	50
GF	0.13	20	0.13	20	0.13	20
TP	0.002	160	0.002	160	0.002	160
RA	0.52	5	0.52	5	0.52	5
RR	2.59	1	2.59	1	0.52	5
R1	7.77	.33(3)	2.59	1	0.52	5
R2	31.08	0.08(12)	5.18	0.5(2)	1.04	2.5
R3	31.08	0.08(12)	15.54	0.16(60)	7.77	0.33(3)
RC	25% lot coverage 2.59 1		25% lot coverage 2.59 1		25% lot coverage 2.59 1	
C1	35% lot coverage 31.08 0.08(12)		35% lot coverage 15.54 0.16(6)		35% lot coverage 7.77 0.33(3)	
C2, CP	90% lot coverage * 31.08 0.08(12)		75% lot coverage 15.54 0.16(6)		50% lot coverage 7.77 0.33(3)	
M1, M2, M4	90% lot coverage No residential uses permitted, except for one single caretaker mobile home per lot.		75% lot coverage		50% lot coverage	
RM	Density/intensity based on General Plan designation					
PS	No requirements for lot coverage. No residential uses permitted, except for one single caretaker mobile home per lot					
REC	75% lot coverage 31.08 0.08(12)		50% lot coverage 15.51 0.16(6)		35% lot coverage 7.77 0.33(3)	

*CP zoning district lot coverage for mixed commercial and residential 75%, 67% and 50% respectively.

Mokelumne Hill Community Plan

X. CONSISTENT ZONING

Land Use Designation*	Consistent Zoning**	Minimum Parcel Size	Services Required	Other Notes
SFR	R1	7,000 sq. ft.	Water, Sewer	
MFR	RI, R2, R3	7,000 sq. ft.	Water, Sewer	Maximum density as noted on land use map
RR½	RR-20,000	20,000 sq. ft.	Water, Sewer	
RR	RR, RA	1-5 acre	1-ac. water or sewer 5-ac. well, septic	
COM or RES***	C1, CP, R1 RR-20,000	7,000 sq. ft. 20,000 sq. ft.	Water, Sewer Water, Sewer	
COM	HS, CP, RC, C1, C2	7,000 sq. ft.	Water Sewer	Multi-family not permitted
PUBLIC SERV.	PS	7,000 sq. ft.	as needed	
REC	REC, PS	variable	as needed	
AG	A1, RA-20, SM	20 acres	as needed	
AG/MINERAL	A1-SM-10	10 acres	as needed	
HISTORIC	DC combining	Same as Base Zone	Same as Base Zone	Applies to residential as well as Commercial development. Until specific DC criteria become established PD review shall be utilized within the historic district.

PLANNED

DEVELOPMENT	PD Combining	Same as Base Zoning	Same as Base Zoning
-------------	--------------	---------------------	---------------------

* Refer to the Community Plan Map in the Appendix

** Refer to Chapter 17 of the Calaveras County Code for definition of uses permitted in respective zones. Note that Mobilehome Combining Zone is not permitted within the townsite area.

*** The intent of this designation is to allow commercial and single family residential uses in a manner that allows easy transition from residential use to commercial use and back to residential use, if so desired by the property owner.

San Andreas Community Plan

CHAPTER 7 - LAND USE DESIGNATIONS

Following are the descriptions of the land use designations utilized in the development of the Community Plan map and text.

7.1 SINGLE FAMILY RESIDENTIAL:

Density:	Natural slope of 0-15% no more than 6 units per acre (6 P.A.) Natural slope of 15-30%, no more than 5 u.p.a. Natural slope of 30%, no more than 4 u.p.a.
Building Density:	No more than 3.5 square foot of building per 10 square feet of land use.
Land Uses:	Primarily single-family uses and those uses which are accessory or compatible with single-family uses. Public uses or public utilities require a use permit. No new agricultural activity is permitted.
Site Development Standards:	As per the R1 Zone of Amended Ordinance 945
Compatible Zoning:	R1; A1 or AP are permitted as holding zone for agricultural uses until residential development is sought by the property owner.

7.2 TWO-FAMILY RESIDENTIAL

Density:	Natural slope of 0-15%, no more than one duplex or two single-family dwellings per 7000 square feet net. Natural slope of 15-30%, no more than one duplex or two single-family dwellings per 9000 square feet. Natural slope exceeding 3(Y~), no more than one duplex or two single-family dwellings per 11,000 square feet.
Building Intensity:	Four square feet of building per 10 square feet of land.
Land Uses:	Primarily duplexes and single-family dwellings and accessory uses. Public use or public utility use requires a use permit. No agricultural activity.
Site Development Standards:	As per the R2 Zone of Amended Ordinance 945
Compatible zoning:	R2; A1 or AP are permitted as holding zone for agricultural uses until residential development is sought by the property owner.

7.3 MULTIPLE-FAMILY RESIDENTIAL

Density:	Natural slope of 0-15%, no more than 12 u.p.a. Natural slope of 15-30%, no more than 10 u.p.a. Natural slope of 30%+, no more than 8 u.p.a.
Building Intensity:	No more than one square foot of building per two square feet of land gross.
Land Uses:	Primarily multiple-family residential including duplexes, and accessory uses. Single-family dwellings permitted only when they are not detrimental to the use of the land for multiple family residential use. Public use and public utility uses allowed with a conditional use permit. No agricultural activity.
Site Development Standards:	As per the R3 Zone of Amended Ordinance 945
Landscaping:	All new multiple-family uses shall have at least 8% of its gross area landscaped. The landscaping to use native materials as much as possible. When the proposal is presented, a method of landscaping maintenance shall be submitted.
Compatible Zoning:	R3; A1 or AP are permitted as holding zone for agricultural uses until residential development is sought by the property owner.

7.4 COMMERCIAL

Residential Density:	Same as for "Multiple Family Residential"
Building Intensity:	No more than one square foot of building per square foot of land area.
Land Uses:	Retail sales, offices, warehousing within a building, residential when necessary to operate another permitted use.
Landscaping:	All new uses shall have at least 8% of its gross area landscaped. The landscaping to use native materials as much as possible. When the proposal is submitted, a method of maintenance shall be submitted. This provision does not apply to areas designated commercial-historic.
Site Development:	As per the C1, C2 and HS zones, respectively, of Amended Ordinance 945.
Compatible Zoning:	C1, C2, HS

7.5 RURAL RESIDENTIAL

Density:	One unit per acre with public water supply. One unit per five acres without public water supply. On natural slopes in excess of 30%, the density shall be 1/2 of the proposed density.
Land Uses:	Primarily single-family uses and those uses which are accessory or compatible with single family uses. Agricultural uses as specified from the RR zone of Amended Ordinance 945.
Building Intensity:	No more than four square foot of building per ten square feet of land.
Site Development Standards:	As per the RR zone of Amended Ordinance 945
Compatible Zone:	RR; A1 or AP are permitted as holding zone for agricultural uses until residential development is sought by the property owner.

7.6 INDUSTRIAL

Density:	Not applicable.
Land Uses:	Industrial and manufacturing concerns
Building Intensity:	Not more than one square foot of building for each square foot of land.
Site Development Standards:	As per the M1, M2 and SM zones respectively, of amended Ordinance 945, amended.
Landscaping:	All new uses shall have at least 8% of its gross area landscaped. The landscaping to use native materials as much as possible, and shall emphasize screening of industrial uses from other uses.
Compatible Zone:	M1, M2, SM

7.7 PUBLIC SERVICE

Density:	Not applicable
Building Intensity:	Not more than one square foot of building for each two square feet of land.
Land Uses:	All government and public utility uses.
Site Development Standards:	As per the PS zone of Amended Ordinance 945

Landscaping: All new uses shall have at least 8% of its gross area landscaped. The landscaping to use native materials as much as possible and shall emphasize screening of public service uses from other uses.

Compatible Zone: PS

7.8 RECREATION

Density: Not applicable

Building
Intensity: Not applicable

Land Uses: Recreation activities, both indoor and outdoor, both private and public, are the primary activities. When connected with these activities, other activities necessary to accommodate the primary use is permitted.

Compatible Zone: REC, PS

7.9 AGRICULTURE/GRAZING

Density: All living units shall be appurtenant to an agricultural activity; but in no case more than one per 50 acres.

Building
Intensity: Not applicable

Land Uses: All forms of agricultural activity including crop and tree farming, grazing and those uses involving the processing of food and fiber products.

Compatible zone: A1, AP, SM

7.10 OFFICES AND MULTI-FAMILY RESIDENTIAL

Density: For residential uses, as follows:
Natural slope of 0-15%, no more than 12 u.p.a.
Natural slope of 15-30%, no more than 10 u.p.a.
Natural slope of 30%+, no more than 8 u.p.a.

Building
Intensity: No more than one square foot of building per two square feet of land grass.

Land Uses: Single use as combination of multi-family residential dwellings and office structures designated to provide a variety of professional services.

Site Development
Standards: As per the R3 or C2 zone of Amended Ordinance 945, or per new zone created to implement this use.

Landscaping:	All new units shall have at least 8% of the gross area landscaped. The landscaping to use native materials as much as possible. When the proposal is presented, a method of landscaping maintenance shall be submitted.
Compatible Zoning:	Preferable zoning would be a new zone designed to limit uses primarily to offices and/or multifamily uses. Secondary possibilities are C1 and C2.

7.11 PLANNED DEVELOPMENT COMBINING ZONE

Purpose:	The intent of this designation is to identify sites that due to their potential use, their permanent location and/or their size, offer excellent opportunities to provide a unified and cohesive plan for development.
Density:	As permitted in the base use designation.
Building Intensity:	As permitted in the base use designation.
Land Uses:	As permitted in the base use designation.
Site Development Standards:	As per the PD Combining Zone of Amended Ordinance 945.
Landscaping:	Not less than 10% of the area covered by buildings and landscaping.
Compatible Zoning:	Base zone as per the base use designation, plus the PD Combining Zone.

Valley Springs Community Plan

DETERMINATION OF CONSISTENT ZONING DISTRICTS FROM LAND USE DESIGNATIONS:

Density = the number of acres per dwelling units

Intensity = the number of persons per acre

(3), (6), (12) -- number of units per acre

* - no residential land uses permitted in this zone, except for one caretaker mobilehome per legal lot.

- Density and intensity is the same as "Multiple family".

LAND USE DESIGNATION (from map)	Consistent zone	Public water, sewer		Public water, septic		Private well, septic	
		Density acres	Intensity persons	Density acres	Intensity persons	Density acres	Intensity persons
Single Family Residential	R1	0.16(6)	15.59	1	2.59	5	0.52
Multiple Family Residential	R3	0.08(12)	31.18	0.16(6)	5.59	0.33(3)	7.80
Public, Semi-Public	PS	*	*	*	*	*	*
Commercial	C1	35% lot coverage#		35% lot coverage#		35% lot coverage#	
	C2	90% lot coverage#		75% lot coverage#		50% lot coverage#	
	CP	90% lot coverage		75% lot coverage		50% lot coverage	
		0.08(12)	31.18	0.16(6)	15.59	0.33(3)	7.80
Industrial	M1	90% lot coverage*		75% lot coverage*		50% lot coverage*	
	M2	90% lot coverage*		75% lot coverage*		50% lot coverage*	
Recreation	REC	20	0.13	20	0.13	20	0.13
Commercial	REC	20	0.13	20	0.13	20	0.13
Recreation	C1	35% lot coverage#		35% lot coverage#		35% lot coverage#	
	C2	90% lot coverage#		75% lot coverage#		35% lot coverage#	
Agriculture Rural	RA	5	0.52	5	0.52	5	0.52
	A1	20	0.13	20	0.13	20	0.13
Agriculture Preserve	AP	50	0.10	50	0.10	50	0.10
Rural Residential	RR	1	2.59	1	2.59	5	0.52
Residential Community	R1	0.16(6)	15.59	1	2.59	5	0.52

Murphys/Douglas Flat Community Plan

Land use designations

2.43 Consistent Zones and Land Use Designations

Land use intensity is 2.59 persons per dwelling unit.

Land use designation	Maximum density or lot coverage (density)	Consistent Zone	Public Services
Domestic Watershed	1 unit per legal existing lot	A1-X-EP	District, well or septic
Rural Transition	1 unit per acreage on land use map	A1, AP, GF TP, RA	District, well or septic
Resource Production	1 unit per acreage on land use map	A1, AP, GF TP, RA	District, well or septic
Rural Residential	1 unit per acreage on land use map	RR, RA	District, well or septic
Single Family Residential	Maximum density 4 units per acre	Consistent R1-10,000	District water and Sewer
	1 unit per acre	R1-1	District water and septic
Multiple Family Residential	6 units per acre	R3-7200	District water
	12 units per acre	R3-3600	and Sewer
Commercial	Maximum lot coverage is 90%; must provide onsite parking*	C1, C2, CP	District water and Sewer
	Maximum lot coverage is 75%; must provide onsite parking*	C1, CP	District water and septic
	Multi-family density C2, CP, 12 units per acre		District water and sewer
Mixed Use	C1, RC, 6 units per acre Residential density: 4 units per acre; maximum lot coverage is 90%; must provide onsite parking*	R1, C1 CP	District water and Sewer
Professional Offices	Residential density: units per acre; Maximum lot coverage is 90%; must provide on-site parking.	CP 12	District water and Sewer
Industrial	Maximum lot coverage: 90%	M1	District water and sewer
	Maximum Lot coverage: 70%	M1	District water and septic
	Maximum lot coverage: 50%	M1	Well and septic
Existing (X) Parcel Size	1 unit per existing legal lot	Base zone-X	N/A
Acreage (1,5,10,20,50) limitation	1 unit per number of acres indicated	Base zone number of acres	N/A

N/A = Not applicable

Murphy's

2.0 COMMUNITY PLAN REZONING

2.1 Zoning and Community Plan Consistency

State law requires that zoning districts assigned to property in the Community Plan be consistent with the land use designation. The Community Plan established the consistent zones in Section II. The zone changes are being undertaken as part of Zoning Amendment #1400 to rezone all lands within the Plan concurrently with the adoption process of the Community Plan.

2.2 Consistent Zoning Districts

Under the provisions of Title 17 of the Calaveras County Code, Zoning, in effect at the time of Plan adoption, the following zones shall be consistent with the Community Plan land use classifications:

<u>Land Use Designation</u>	<u>Parcel Sizes, Notes</u>	<u>Consistent Zone</u>
Domestic Watershed		A1-X-EP
Rural Transition	20-acre minimum Less than 20-acre minimum	RA-20 RA-5
Agriculture Preserve	50-acre minimum	AP-50
Resource Production	20-acre minimum Less than 20-acre minimum	GF-20, A1-20 RA-X, RA
Rural Residential	Rural Community area: 20-acre minimum 10-acre minimum 5-acre minimum Big Valley Subd., Murphys Ranch Unit 3 vicinity Town Areas: 5-acre minimum 1-acre minimum Central Murphys	RA-20, RR-20 RA-10, RR-10 RA-5, RR-5 RR-X RR- 5 RR- 1 RR- 1
Single-Family Residential	Murphys Ranch Subdivision #1,#2 Murphys town area Douglas Flat town area Central Murphys	R1-X R1-10,000 R1-1 R1-10,000
Multi-Family Residential	6 units per acre 12 units per acre	R3-7200 R3-3600
Commercial	Murphys town area Douglas Flat	C1 C2 CP C1 C2 CP
Mixed Use		R1-10000 C1 CP
Professional Offices		CP
Industrial		M1

Airport Special Plan

TABLE 1

CONSISTENT ZONES⁽¹⁾

MAXIMUM DENSITY⁽²⁾ - BUILDING INTENSITY⁽³⁾

Land Use Designation	Consistent Zones	Maximum Density
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NATURAL RESOURCE LAND:

Agriculture Preserve

LOS ⁽⁴⁾ A, B, C	A1, REC ⁽⁵⁾	20 Acres
not in Williamson Act Contract	AP	50 Acres
LOS D, E, F		
not in Williamson Act Contract	A1, REC	40 Acres
in Williamson Act Contract	AP	50 Acres
Any LOS	PS	N/A

Mineral Resource Area - 2A

LOS A, B, C	RR, RA, A1, AP	20 Acres
LOS D, E, F	RR, RA, A1, AP	40 Acres
Any LOS	PS, REC	N/A

Mineral Resource Area - 2B

LOS A, B, C	RR, RA, A1, AP	10 Acres
LOS D, E, F	RR, RA, A1, AP	40 Acres
Any LOS	PS, REC	N/A

COMMUNITY DEVELOPMENT LAND:

Future Single Family Residential

LOS A, B, C	RR, RA, A1, AP	5 Acres
LOS D, E, F	RR, RA, A1, AP	40 Acres
Any LOS	PS	N/A

Future Single Family Residential 50% Slope

LOS A, B, C	RR, RA, A1, AP	20 Acres
LOS D, E, F	RR, RA, A1, AP	40 Acres
Any LOS	PS	N/A

(TABLE 1 CONTINUED)

Land Use Designation	Water/ Sewage	Consistent Zones	Lot Coverage
COMMERCIAL			
LOS A, B, C	public/public	RC, C1, C2, CP, REC	90%
	public/septic	RC, C1, C2, CP, REC	75%
	well/septic any	RC, C1, C2, CP, REC	50%
LOS D, E, F	any	PS	N/A
INDUSTRIAL			
LOS A, B, C	public/public	M1, RM, M4	90%
	public/septic	M1, RM, M4	75%
	well/septic	M1, RM, M4	50%
LOS D, E, F	any	PS	N/A

NOTES

1. Consistent Zones - Indicates the base zoning districts from Title 17 of the Calaveras County Code permitted in the land use designation. Legally existing zoning that becomes a nonconforming zoning district by adoption of this Plan shall be deemed a legally existing nonconforming zone.
2. Maximum Density - The maximum number of dwelling units per acre permitted.
3. Building Intensity - The maximum percentage of the parcel allowed to be covered by structures (lot coverage).
4. LOS - Level of Service for County roads providing access to the project site. See Public Facilities and Services Element, Part I: Road System, and the Community Development Element of the General Plan for more detail.
5. The REC zone may be consistent in any Natural Resource Lands, provided that the development proposed concurrently with the rezoning request is consistent with the policies of this Plan and the Community Development Element of the General Plan.

III

CIRCULATION ELEMENT APPENDIX

III

CIRCULATION ELEMENT APPENDIX

The following information is provided for the purpose of illustrating the various elements of the circulation system. It is not intended to be a complete description of the system, but rather a guide to the various components and their interrelationships. The information is presented in a tabular format, with the various elements listed in the first column and their descriptions in the subsequent columns. The information is presented in a tabular format, with the various elements listed in the first column and their descriptions in the subsequent columns.

Element	Description
1. Circulation System	The circulation system is the primary component of the system, responsible for the distribution of the various elements. It is composed of the following sub-elements:
2. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
3. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
4. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
5. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
6. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
7. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
8. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
9. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:
10. Circulation System Sub-Elements	The circulation system sub-elements are the various components that make up the circulation system. These include the following:

The following information is provided for the purpose of illustrating the various elements of the circulation system. It is not intended to be a complete description of the system, but rather a guide to the various components and their interrelationships. The information is presented in a tabular format, with the various elements listed in the first column and their descriptions in the subsequent columns. The information is presented in a tabular format, with the various elements listed in the first column and their descriptions in the subsequent columns.

CALAVERAS COUNTY ROAD SERVICE LEVELS

April 27, 1993 at 8:20 a.m.

Page 1

NAME	NUM	CLA	SEG	START_POIN	TERRAIN & SLVL	ADT	DATE
Access Road	417	LOC			F		
Adams Avenue	731	RES			R		
Adams Court	104	A	RES		R		
Airacobra Avenue	929	RES			M		
Alder Street	810	CON	1/1	Maple Street at 0.142	Inach		
Alfreda Street	754	RES	1/1	Angels Rd to end at cul-de-sac	Inach		
Algiers Street	842	CON	1/1	Scott St/6-Mile Rd to Sheep Ranch Road	Inach	784	0990
Almaden Drive	371	K	RES		M	423	0295
Alpine Vista	952	LOC			M		
Alpine Way	374	R	RES		M		
Altamont	833	RES			M		
Amber Way	842	D	RES		M		
Andrew Lane	793	RES			Inach	R Adqr.	
Angels Road, San Andreas	743	THR	1/1	Hwy 49 to Hwy 49	Adqr	R	
Angels Road, Vallecito	034	THR	1/1	Main St-Vallecito to SH 004	Adqr	R	
Anna Lee Way	565	A	RES		M		
Anney Court	402	B	RES		R		
Ansil Davis Road	913	MIN			Inach		0986
Antler Drive	914	A	RES		M		
Antonovich Road	109	C	RES		R		
Apache Road	149	RES			M		
Apple Blossom Drive	846	A	RES		M		
Apple Drive	839	A	RES		R		
Arapaho Court	409	M	RES		R		
Arden Avenue	847	A	RES	<18'	F-99R		
Arkansas Ferry Road	592	LOC			R		
Armstrong Road	331	MIN	1/1	Sheep Ranch Rd to end pavement/CMR <18'	F-28M	149	0692
Arnold Byway	363	RES			M	123	0986
Arrowhead Street	963	CON	1/1	Copper Cove Dr to Kiva Dr	Adqr	73	1088
Aspen Lane	950	G	LOC		M		
Aspen Way	374	L	RES		M		
Associated Office Road	162	MIN	1/1	Rail Road Flat Rd to SH 026	C-30M	347	0589
Audrey Court	577	A	RES		M		
Augusta Drive	579	RES			M		
Avenue A	891	RES		<18'	F-99R		
Avery Drive	374	B	RES		Adqr	M	
Avery Hotel Road	324	THR	1/1	SH004 to 0.124, end at Moran Road	Adqr	F 1154	0689
Avery Sheep Ranch Road	322	MIN	1/2	SH 004 to 1.662	B-31M	813	0589
Avery Sheep Ranch Road	322	MAJ	2/2	1.662 to 4.663, end Sheep Ranch Rd <18'	F-23M	132	0985
B Street	815	RES		<18'	F-99M		
Bailey Ridge Road	175	MIN	1/2	Schaad Rd to 0.683	F-19M		
Bailey Ridge Road	175	MIN	2/2	0.683 fr Schadd Rd to 4.480	F-11M		
Baker Riley Way	274	LOC	1/6	Jesus Maria Road to 0.211 <18'	F-18M	160	0686
Baker Riley Way	274	LOC	2/6	0.211 to 0.946 <18'	F-18M		
Baker Riley Way	274	LOC	3/6	0.946 to 1.292 <18'	F-24M		
Baker Riley Way	274	LOC	4/6	1.292 to 1.356 <18'	F-14M		
Baker Riley Way	274	LOC	5/6	1.356 to 1.605 <18'	F-15M		
Baker Riley Way	274	LOC	6/6	1.605 to 1.719, end <18'	F-6 M		
Baker Street	709	RES			R		
Bald Mountain Road	251	MIN	1/3	SH 026/Pine Street to 3.500, end A/C	C-28M	104	0985

CALAVERAS COUNTY ROAD SERVICE LEVELS

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Bald Mountain Road	251	MIN	2/3	3.500 to 5.267, end pavement <18'	F-18M		
Bald Mountain Road	251	MIN	3/3	5.267 to 6.944, end at forest road <18'	F-15M		
Baldwin Street	073	THR	1/1		AdqtR	676	1288
Banner Road	151	LOC		<18'	F-99M		
Barbara Way	573	D	RES		M		
Bartelink Drive	107	A	RES		R	41	0289
Batten Road	401	A	LOC	<18'	F-99M		
Bay View Drive	971	RES			R		
Baywood View	371	L	RES		M		
Beal Ranch Road	805	MIN	1/1	SH026 to end??? 1.989	F-16M		
Bear Clover Drive	384	A	RES		M		
Bear Run	560	D	RES		M		
Beatrice Drive	863	RES			M		
Bellview Street	732	RES			In ad R		
Belmont Way	379	G	RES		M		
Ben Smith Road	381	LOC			M		
Ben Thorn Drive	409	D	RES		M	39	1089
Berkesey Drive	105	C	RES		AdqtR		
Berry Street	753	A	RES	<18'	F-99R		
Beth Court	575	B	RES		M		
Big Trees Road	031	B	CON 1/1	SH004 west to Main St, 0.243	AdqtF	4712	0692
Big Trees Village Drive	145	RES			M	569	0989
Bigfoot Circle	409	R	RES		R		
Bird Dog Circle	895	RES			R		
Black Bart Boulevard	409	A	RES		M		
Black Oak Court	849	A	RES		M		
Black Oak Drive	849	RES			M	892	0585
Blackbird Lane	898	RES	1/1	Avery Sheep Ranch to Sorrel	AdqtM		
Blackfoot Circle	426	RES			R		
Blacksmith Avenue	894	RES		<18'	F-99R		
Blagen Road	036	CON	1/1	SH004 to 0.863, end at Dunbar & Main	AdqtM	2596	0486
Blizzard Mine Road	164	LOC		Rail Road Flat Road	M	177	0886
Blue Lake Junction	559	RES			M		
Blue Lake Springs Drive	570	RES			R	1734	0889
Blue Mountain Court	917	A	RES		M		
Blue Mountain Road	017	MIN	1/1	RRF Rd to Schaads, end 3.300	B-40M	810	0589
Blue Mountain Road	173	MIN	1/1	Schaads to end CMR,	M		
Bluebird Lane	896	RES			R		
Boards Crossing	409	THR	1/1	SH 004 to end, 0.480, SNF portion	AdqtM	1432	0989
Bohe Court	109	Q	RES		F		
Bollea Road	661	LOC			F		
Bonanza Way	916	RES			M		
Bonfilio Drive	373	RES		<18'	F-99M		
Bonnet Court	983	RES			M		
Boro Court	582	E	RES		M		
Botfuher Road	109	D	RES		R		
Bouvard Street	762	RES	1/1	Main St to 0.165 Pine St	AdqtM		
Bow Drive	964	RES		<18'	AdqtR		
Brae Burn Drive	371	B	RES		R		
Branding Iron Court	837	A	RES		R		

CALAVERAS COUNTY ROAD SERVICE LEVELS

April 27, 1993 at 8:20 a.m.

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Brandy Flat Court	917	B	RES		R		
Britton Court	109	V	RES		R		
Broadway Street	735		CON		M		
Brookside Road	243		LOC		R		
Bummerville Road	252	MIN	1/1	Winton Rd to end, Bald Mountain, 0.511	C-28M	170	6083
Burns Court	109	U	RES		R		
Burson Road	055	MAJ	1/2	Camanche Parkway to 1.903, Hwy 12	B-46R	1130	0792
Burson Road	055	MAJ	2/2	1.093 to 6.638, end at SH 026	C-42R	835	0792
C Street	814		RES		M		
Calaveritas Drive	377		RES		M		
Calaveritas Road	042	MIN	1/4	Mountain Ranch Road to 0.740	AdqtR	761	0286
Calaveritas Road	042	MIN	2/4	0.740 to 3.900, town of Calaveritas	B-38R	306	0392
Calaveritas Road	042	MIN	3/4	3.900 to 4.151, through town to bridge	F-13M		
Calaveritas Road	042	MIN	4/4	4.151 to 4.979, end Fricot City Rd	D-29R	150	0186
Calaveritas Street	414		LOC		M		
California Street	689	THR	1/1	Rose Street to 0.172, end at SH 026 (?)	AdqtR	173	0386
California Street	750	RES	1/2	Lewis to 0.156, parking lot	AdqtM		
California Street	750	RES	2/2	parking lot to Hwy 49, one way portion	InadM		
Camanche Court	919	A	RES		M		
Camanche Drive	919		RES		M		
Camanche Parkway South	057	MAJ	1/3	Amador Co Line to 1.780 miles south	B-45R	1091	0792
Camanche Parkway South	057	MAJ	2/3	1.780 to 3.294, Pattison Road	B-48R	811	0792
Camanche Parkway South	057	MAJ	3/3	3.294 to 8.355, end at SH 012	B-54R	903	0792
Camp Fire Court	838	A	RES		M		
Campo Seco Road	059	MIN	1/5	Chili Camp Rd, begin pavement, to 0.486	D-26R	180	0489
Campo Seco Road	059	MIN	2/5	0.486 to 0.927, community area	D-25R	180	0489
Campo Seco Road	059	MIN	3/5	0.927 to 1.813, end at Watertown Road	B-36R		
Campo Seco Road	059	MIN	4/5	Watertown Rd to Sandretti (pvt to Pardee)	C-34R	400	
Campo Seco Road	059	MIN	5/5	Sandretti Rd (Pardee) to Paloma Rd, end	C-30R	120	0689
Campo Seco Way	924		RES		M		
Cane Lane	107	B	RES		R		
Canepa Lane	360		RES	<18'	F-99R		
Canyon View Court	378	E	RES		M		
Canyon View Drive	839	MIN	1/1	SH004 to 0.910	C-25M		
Carol Kennedy Drive	497		LOC	Hwy 49 to end	R	123	0590
Carson Hill Court	917C		RES		M		
Carson Street	353	A	CON	1/2 Church St. to 0.380	InadM	85	0388
Carson Street	353	A	MIN	2/2 0.380 to 0.720, Red Hill Road <18'	F-20M		0388
Castlewood Lane	371	F	RES		M		
Catholic Cemetary Road	740		RES	<18'	F-99M		
Cave City Road	134	MIN	1/4	Michel Road to 0.464, end O/L	B-35M	332	0686
Cave City Road	134	MIN	2/4	0.464 to 1.492	B-32M		
Cave City Road	134	MIN	3/4	1.492 to 2.178, McKinney Cr Bridge <18'	F-22M	95	0788
Cave City Road	134	MIN	4/4	2.178 to 2.884, end CMR (dirt) <18'	F-16M		
Cedar Circle	400	B	RES		M		
Cedar Drive	834		RES	1/1 Hillcrest Dr to 0.227, cul-de-sac <18'	F-16M		
Cedar Lane	821	CON	1/1	SH 004 to 0.334, end at Black Oak Drive	InadM	1435	0986
Cedar Street	685	CON	1/1	SH 012 to .210, end	AdqtF		
Cemetery Ave-San Andreas	747		RES	<18'	F-99M		
Cemetery Ave-San Andreas	748		RES	<18'	F-99M		

CALAVERAS COUNTY ROAD SERVICE LEVELS

April 27, 1993 at 8:20 a.m.

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Cemetery Lane-Copper	715	RES			R		
Cemetery Lane-Murphys	844	RES	1/2	Jones Street to 0.175, enter cemetary	InadM		
Cemetery Lane-Murphys	844	RES	2/2	0.175 to 0.191, end circle in cemetary	InadM		
Cemetery Lane-Vallecito	354	RES		<18'	InadM		
Cemetery Lane-West Point	768	LOC			M		
Centennial Mine Road	231	LOC		<18'	F-99M		
Center Street	780	MIN	1/2	Hwy 49 to 0.950, Main St-Moke Hill	C-27R	538	1185
Center Street	780	CON	2/2	0.950, Main St to Easy Bird, end	InadM	331	1185
Central Hill Road	121	MIN	1/3	SH 012 to 0.947, end pavement <18'	F-22M		
Central Hill Road	121	MIN	2/3	0.947 to 1.955 <18'	F-11M		
Central Hill Road	121	MIN	3/3	1.955 to 3.485 <18'	F-7 M		
Chamonix Court	374	T RES			F		
Chamonix Drive	374	H RES			R		
Chaparral Drive	848	A RES			M		
Charmstone Way	965	RES		<18'	F-99R		
Chestnut Street	683	CON	1/1	SH012/026 to 0.180, end at Oak Street	AdqtF	953	0389
Cheyenne Way	147	RES			M		
Chile Camp Road	590	MIN	1/1	Camanche Parkway	C-31R	158	0885
Chillano Avenue	593	LOC			F		
China Gulch	785	RES		<18'	F-99M	116	1185
Chinook Way	149	C RES			M		
Choctaw Drive	147	B RES			M		
Chumash Circle	429	RES			R		
Church Hill Road	011	CON	1/2	SH 049 to 0.362	AdqtM	1495	0590
Church Hill Road	011	CON	2/2	0.362 to 1.161, end Pool Station Rd	AdqtM	276	0492
Church Street - Moke Hill	498	RES			AdqtM	277	0687
Church Street - Murphys	841	CON			F	1349	
Church Street - Vallecito	354	A RES	1/1	Angels Road to 0.244, Main Street <18'	AdqtF		0788
Circle Court	825	F RES			M		
Circle Drive	825	E RES			M		
Clark Street	774	RES		<18'	F-99M	43	1285
Colleen Court	573	C RES			M		
College Street	594	RES			F		
Columbia Way	923	RES			M		
Commercial Way	835	A RES		SH004 to 0.267, end	M	167	0789
Conifer Court	378	D RES			M		
Coniferous Drive	378	A RES			M		
Cooks Camp Road	242	LOC			M		
Copper Cove Court	960	A RES	1/1	O'Byrnes Ferry Rd to end	AdqtF		
Copper Cove Drive	960	CON	1/1	O'Byrnes Ferry Rd to 2.488, end Little J	AdqtR	1854	0689
Corral Flat Road	771	RES		>18'	F-99M	521	0994
Cosgrove Road	492	LOC		<18'	F-99R		
Costa Road	431	RES		<18'	F-99M		
Council Court	986	RES			R		
Council Trail	985	RES			M		
Country Club Drive	823	D CON	1/1	SH 004 to 0.127, end at Meadowview	AdqtM	1698	0192
Country Club Drive	823	G CON	1/1	Meadowview to 0.065, end at El Dorado	AdqtM		
Country Club Drive	850	CON	1/1	Pine Drive to 0.845, end at Pine Knoll	InadM	78	0785
Country Club Drive	851	CON	1/1	SH004 to Pine Drive	AdqtR		
Court Street	746	THR	1/1	Main Street to 0.094, end at SH 049	InadR	1718	0492

profile

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Coyote Creek Road	357	RES		<18'	F-99R		
Coyote Drive	106	RES			R		
Crow Court	409	W RES			R		
Crow Drive	409	X RES			R		
Crowell Lane	109	X RES			R		
Crystal Way	915	H RES			M		
Cub Court	560	G RES			R		
Cunningham Road	332	LOC			M		
Cypress Point Drive	371	C CON	1/1	Meadow Drive to 1.356, end	AdqtM	1402	0889
D Street	813	RES			M		
Dalmatia Drive	848	C RES			M		
Dam Road	404	RES	1/2	SH004 TO 0.061, road narrows	AdqtF		
Dam Road	404	RES	2/2	0.061 to 0.159, end at dam <18'	InadF		
Daphne Street	688	CON	1/2	Pine St to 0.131, Laurel St	InadF	716	0490
Daphne Street	688	CON	2/2	Laurel, 0.131 to end at Rose St	AdqtF	1430	0389
Darby Russell Road	406	MIN	1/2	SH004 to 0.611	F-20M	205	0789
Darby Russell Road	406	MIN	2/2	0.611 to 1.062, end CMR <18'	F-16M		
Dardanelle Vista	148	RES			M		
David Lee Road	560	A RES			M		
Dawyn Drive	564	A RES			M		
Dean Court	561	A RES			R		
Dean Way	561	RES			R		
Deardorff Road	221	LOC		<18'	F-99M		
Deer Run	823	B RES			R		
Deerwood Court	374	W RES			M		
Del Orto Road	495	RES		<18'	F-99M		
Del Paso Lane	379	H RES			M		
Del Rio Drive	581	RES			M		
Delin Way	109	H RES			R		
Demin Court	109	M RES			R		
Diablo View Court	825	G RES			M		
Dianna Drive	572	A RES			M		
Doe Court	829	A RES			M		
Dogtown Road	420	MIN	1/2	Fricot City Road to 8.293 <18'	F-27R	45	0286
Dogtown Road	420	MIN	2/2	8.293 to 9.416, Angels City Limit	B-36R	750	0586
Dorothy Drive	578	A RES			M		
Doster Road	137	LOC	1/4	Hawver Road to 0.938 <18'	F-15M		
Doster Road	137	LOC	2/4	0.938 to 2.388 <18'	F-14M		
Doster Road	137	LOC	3/4	2.388 to 3.885 <18'	F-15M		
Doster Road	137	LOC	4/4	3.885 to 4.649 <18'	F-23M		
Double Springs Road	123	MIN	1/3	East end at SH012, to 0.682, SH026	B-50R	169	0490
Double Springs Road	123	MIN	2/3	0.682 to 1.211, town of Double Springs	B-40R	192	0490
Double Springs Road	123	MIN	3/3	1.211 to 2.163, end at west end Hwy12/26	B-44R	167	0390
Douglas Drive	376	RES			M		
Dowds Landing Road	383	MIN	1/1	Love Creek Rd to 0.581 end	F-13M		
Dunbar Road	362	THR	1/5	SH004 to 0.162, pavement change	AdqtM	692	0486
Dunbar Road	362	THR	2/5	0.162 to 0.430, end pavement <18'	InadM		
Dunbar Road	362	THR	3/5	0.430 to 0.672, gravel section <18'	InadM		
Dunbar Road	362	THR	4/5	0.672 to 0.756, one lane A/C <18'	InadM		
Dunbar Road	362	THR	5/5	0.756 to 0.896, end at Blagen Road	InadM		

CALAVERAS COUNTY ROAD SERVICE LEVELS

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Dunn Road	109	RES			R	180	0289
E Street	818	RES			M		
Eagle Lane	861	LOC		SH004 to 0.130, end	F-5	M	
East Murray Creek Road	141	MIN	1/1	R.R. Flat Rd to 2.366, end Whiskey <18'	F-25M	182	1089
Easy Bird Road	791	RES	1/1	Center St to 0.155, end	AdqtM		
Easy Street	150	E RES			M		
Edgemont Road	950	B LOC		<18'	F-99M		
Edgewater Court	984	RES			R		
Edster Street	694	RES		<18'	F-99F		
El Camino Bootstrap	409	I RES			M		
El Dorado Center	872	LOC		<18'	F-99M		
El Dorado Drive	918	CON	1/1	Georgeann Drive to 1.230, end	AdqtM	1859	0889
El Rancho Drive	582	D RES			M		
Eliese Drive	576	RES			M		
Elizabeth Drive	575	A RES			M		
Esmerelda Road	412	LOC	1/2	Dogtown Rd to 0.646, end pen@ Chatom<18'	F-23M	59	0686
Esmerelda Road	412	LOC	2/2	0.646 to 5.083, end Sheep Ranch Rd <18'	F-12M		
Evans Road	128	LOC		<18'	F-99F		
Evergreen Drive	378	B RES			M		
Evergreen Drive	825	A RES			F		
Evergreen Road	553	MIN	1/1	Warren Rd to 1.001, end Southworth <18'	F-39F	215	0589
Fairway Drive	915	RES			M		
Farris Drive	108	RES	1/1	Hanley Dr to end, cul-de-sac	AdqtM		
Fawn Circle	828	C RES			M		
Feather Court	989	RES	1/1	Feather Drive	AdqtF		
Feather Drive	988	RES	1/1	Copper Cove Dr to CSD portion	AdqtF		
Felix Drive	376	A RES			M		
Fern Way	823	A RES			M		
Fifth Green Drive	914	RES			M		
Finnegan Court	490	LOC		<i>delete</i>	R		
Finnegan Lane	496	LOC		<18' <i>Georgeann Lane</i>	F-99R		
Fir Drive	823	F CON	1/1	SHwy 004 to 0.041, end at Meadowview	InadM	123	0986
Fitzgerald Road	671	LOC			M		
Flamingo Way	379	F RES			M		
Flanders Drive	375	RES			M		
Flint Street	703	RES		<18'	F-99F		
Flint Trail	967	RES			R		
Florence Circle	759	B RES			M		
Flume Court	915	B RES			M		
Fong Drive	975	RES			R		
Foothill Court	751	RES	1/1	Lewis Ave to 0.099, end	AdqtR		
Forest Lane	825	D RES			M		
Forty-four (44) Ranch Rd	136	LOC		<18'	F-99M	113	1089
Fourth Crossing Road	043	A MIN	1/1	SH049, to 2.863 end at Calaveritas Rd	B-37R	187	0286
Fourth Street	817	RES			M		
French Circle	759	A RES			R		
French Gulch Road	312	MIN	1/2	Main St Murphys/Grade Rd to 3.020	B-36M	468	0785
French Gulch Road	312	MIN	2/2	3.020 to 4.503, end Lower Grade Rd <18'	F-26M	320	0886
Fricot City Road	043	MIN	1/4	Calaveritas to Fricot City west gate	C-34M	252	0286
Fricot City Road	043	MIN	2/4	through Fricot City school to end pave	F-16M		

reassignment
506 / 0395

CALAVERAS COUNTY ROAD SERVICE LEVELS

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Fricot City Road	043	MIN	3/4	dirt portion from school east to pen	E-21M		
Fricot City Road	043	MIN	4/4	pen section ending at Sheep Ranch Rd	F-15M	57	0686
Frontage Road	132	RES			F		
Frontage Road	416	LOC			F		
Frontage Road	416	A LOC			F		
Frontage Road	416	B LOC		<18'	F-99M		
Frontage Road	416	C LOC			F		
Frontage Road	418	LOC		<18'	F-99M		
Fullen Road	321	MIN	1/1	Avery S R Rd to 3.023, end at S R Rd<18'	F-29M	50	0692
Gann Road	522	LOC		<18'	F-99R		
Gann Street	702	RES			F		
Garabaldi Street	893	LOC	1/2	Mt Ranch Rd to 0.029, end Senders park	C-15F		
Garabaldi Street	893	LOC	2/2	0.029 to 0.048, end	F-15R		
Garden Lane	790	RES		<18'	F-99F		
Gardner Flat Road	409	H RES			M		
Garner Place	077	RES			R	510	0189
Gatewood Avenue	742	RES		<18'	F-99M		
Georgeann Court	918	C RES			M		
Georgeann Drive	575	RES			M		
Gertrude Way	572	B RES			M		
Gillam Road	611	MIN	1/3	Paloma Road to 0.211, end pen <18'	F-13R		
Gillam Road	611	MIN	2/3	0.211 to 1.307, begin pen again <18'	F-19R		
Gillam Road	611	MIN	3/3	1.307 to 2.100, end Obl Springs Rd <18'	F-19R		
Glen Echo Drive	830	LOC		<18'	F-99M		
Gloria Drive	567	RES			M		
Gold Court	734	A RES			F		
Gold Hill Circle	915	G RES			M		
Gold Hunter Road	729	RES	1/1	Mt Ranch Rd to end, 0.171, country club	Adqtr		
Gold Oak Road	759	RES	1/1	SH0049 to end at cul-de-sac	Adqtr		
Gold Street	840	A RES			R		
Gold Strike Road	012	A MAJ	1/1	Main St to 2.490, end at SH0049	C-43R	1389	0490
Golden Creek Drive	401	B RES	1/1	SH004 to SH004	C-30R		
Goodell Road	612	LOC	1/2	Paloma Road to 0.111, end pen <18'	F-23R		
Goodell Road	612	LOC	2/2	0.111 to 1.180, end at private gate <18'	F-21R		
Government Center	741	C RES			R		
Government Center	741	D RES			R		
Grace Court	574	D RES			M		
Grand Tetons Drive	374	J RES			M		
Granite Street	704	RES		<18'	F-99F		
Graymare Road	897	RES			R		
Green Meadow Court	828	E RES		<18'	Adgt. F-99M		
Greensboro Way	582	RES			M		
Gregory Road	541	MIN	1/1	Milton Rd to 1.575, end Gregory Rnch<18'	F-34F	86	0390
Grenoble Court	374	U RES			F		
Grenoble Drive	374	K RES			F		
Grizzly Way	560	C RES			R		
Gwin Mine Road	613	MIN	1/1	Paloma Road to 3.208, end at Amad Cnty L	F-16M		
Gwin Street	691	LOC	1/2	Gwin Mine Road to 0.515, end pvtmt <18'	InadR		
Gwin Street	691	LOC	2/2	0.515 to 0.589, end CMR <18'	InadR		
Hangtree Trail	409	B RES			M	128	1089

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Hangtree Trail Court	409	J	RES	<18'	F-99M		
Hanley Drive	108	A	RES 1/1	Farris Dr to Hartvickson Ln	AdqtM		
Hardesty Road	129		LOC		F		
Harper Street	109	J	RES		F		
Hartvickson Lane	074	CON	1/1	Vista del Lago to end at Baldwin	AdqtR	1030	0888
Hawver Road	493	MIN	1/5	Jesus Maria Rd to 0.921 <18'	F-13M	17	0486
Hawver Road	493	MIN	2/5	0.921 to 2.416 <18'	F-18M		
Hawver Road	493	MIN	3/5	2.416 to 5.048 <18'	F-16M		
Hawver Road	493	MIN	4/5	5.048 to 5.613 <18'	F-14M		
Hawver Road	493	MIN	5/5	5.613 to 7.766, Gold Strike Rd <18'	F-24M	120	0586
Heinemann Drive	109	A	RES		R	180	0189
Helen Drive	564	B	RES		M		
Helisma	673		LOC	<18'	F-99F		
Heney Court	109	P	RES		F		
Heney Lane	105	B	RES 1/1	Silver Rapids to 0.955, end	AdqtR		
Henry Drive	364		RES		R		
Hiawatha Drive	500	A	RES		M		
Hibernation Point	560	F	RES		M		
Hidden Valley Road	246	MIN	1/4	Winton Road to 0.116, rd narrows <18'	F-25M	97	0985
Hidden Valley Road	246	MIN	2/4	0.116 to 0.900, gravel <18'	F-20M	-	
Hidden Valley Road	246	MIN	3/4	0.900 to 1.160, dirt logging road <18'	F-17M		
Hidden Valley Road	246	MIN	4/4	1.160 to 1.578, end Lily Gap <18'	F-12M		
Higdon Road	232	MIN	1/1	SH0026 to 2.242, end private drives <18'	F-24M	328	0786
Higdon-Spink Cutoff Road	234	MIN	1/1	Higdon Road to 0.780, end Spink Road <18'	F-21M	116	0786
High School Street	744		RES		M		
Hildebrandt	756		RES		M		
Hillcrest Drive	379		RES		M		
Hillcrest Drive	408		RES		M	643	0789
Hillcrest Drive	832		RES		M		
Hillcrest Drive	950	A	LOC		M		
Hodson Road	511	MIN	1/3	SH004 to 0.138	D-25R		
Hodson Road	511	LOC	2/3	0.138 to 0.348	E-20R		
Hodson Road	511	LOC	3/3	0.348 to 1.050, end CMR	C-30R		
Hoerchner Place	778		RES	<18'	F-99M		
Hoffman Court	109	S	RES		R		
Hoffman Drive	109	E	RES		R		
Hogan Dam Road	058	MIN	1/3	SH026 to 0.671, end residential area	D-27R	530	0390
Hogan Dam Road	058	MIN	2/3	0.671 to 1.785, through curves to dam	C-33R	312	0390
Hogan Dam Road	058	MIN	3/3	1.796 to 3.816, end at Silver Rapids	C-33R	146	0490
Hogan Dam Road	513	MIN	1/4	Hunt Road to 5.254, Gann Road	E-22R		
Hogan Dam Road	513	MIN	2/4	5.254 to 7.357	E-22R		
Hogan Dam Road	513	MIN	3/4	7.357 to 9.156, end pen	D-27R		
Hogan Dam Road	513	MIN	4/4	9.156 to 10.415, Silver Rapids Road	C-31R	254	0390
Hokan Circle	423		RES		R		
Holmquist Lane	109	F	RES		R		
Honey Court	560	B	RES 1/1	Grizzley Way to 0.099, end	AdqtM		
Hoopa Circle	428		RES		R		
Horseshoe Drive	824	CON	1/1	east SH004 to 0.459, end west SH004 <18'	F-23M		
Huckleberry Lane	109	B	RES		R	445	0289
Hunt Road	520	MIN	1/4	SH004 to 3.581 mi <18'	F-30R	77	1085

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Hunt Road	520	MIN	2/4	3.581 to 11.075, through straight <18'	F-36R		
Hunt Road	520	MIN	3/4	11.075 to 12.488, end curves <18'	F-30R		
Hunt Road	520	MIN	4/4	12.488 to 14.538, end Milton Road <18'	F-30R	37	0689
Hunter Dam Road	835	LOC	1/1	SH004 to 0.319 end <18'	F-15M		
Hunter Dam Road	836	LOC		<18'	F-99M	25	0992
Incline Way	582	A	RES		M		
Independence Cemetary Rd	263	LOC	1/2	Independence Road to 0.166	D-23M		
Independence Cemetary Rd	263	LOC	2/2	0.166 to 0.320, end road <18'	F-5 M		
Independence Road	262	MIN	1/1	Ridge Rd to Rail Road Flat Rd	B-30M	300	0692
Indian Rock Road	410	A	RES		M		
Innsbruk Drive	374	G	RES		R		
Inspiration Drive	824	A	RES 1/1	Horseshoe Drive to 0.123, end	F-19M		
Iris Way	235	LOC		<18'	F-99M		
Iron Wood Court	909	RES			R		
Iroquois Circle	990	RES			F		
Iroquois Court	990	A	RES		F		
Iroquois Drive	409	Y	RES		M		
Jackson Street	714	RES		<18'	F-99R		
Jeannie Drive	578	B	RES		M		
Jeffry Circle	950	F	LOC		M		
Jenny Columbus Street	536	LOC		<18'	F-99R		
Jenny Lind Court	918	A	RES		M		
Jenny Lind IOOF Street	535	RES			R		
Jenny Lind Road	054	MAJ	1/1	SHWY 026 to 1.537, end at Milton Road	A-52R	1122	0390
Jenny Lind Street	533	RES		>18'	F-99R		
Jerilynn Drive	574	RES			M		
Jerri Court	574	B	RES		M		
Jesus Maria Road	027	MAJ	1/6	SH026 Moke Hill to 1.778, end A/C <18'	F-24M	146	0289
Jesus Maria Road	027	MAJ	2/6	1.778 to 2.935, along river <18'	F-25M		
Jesus Maria Road	027	MAJ	3/6	2.935 to 3.682, slurry over <18'	F-28M	150	0593
Jesus Maria Road	027	MAJ	4/6	3.68 to 10.887 one lane pen road <18'	F-24M		
Jesus Maria Road	027	MAJ	5/6	10.887 to 11.874, 1987 reconstruction	B-35R		
Jesus Maria Road	027	MAJ	6/6	11.874 to Rail Road Flat Rd	C-32R	0-29R	501
Jibway	409	Z	RES		M	89	1089
Jones Street	39	RES	1/1	Main St W to Main St E	InadR	322	1188
Julia Lane	568	RES			M		
Juniper Circle	950	H	LOC		M		
Juniper Drive	400	A	RES		M		
Jurs Road	250	LOC	1/1	Bald Mtn & Bummerville Rd to 1.417, end	F-18M		
Karock Road	150	RES			M		
Karock Road	150	I	RES		M		
Kay Court	577	B	RES		M		
Kenny Drive	105	A	RES		R		
Kenshaw Court	441	RES			R		
Kenshaw Way	440	RES			M		
Kickapoo Court	150	H	RES		F		
Kiota Hills Drive	371	H	RES		M		
Kiowa Lane	150	G	RES		M		
Kirby Street	076	RES			R	193	0289
Kit Carson Circle	922	RES			M		

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Kiva Court	976	RES			M		
Kiva Drive	980	RES			M	246	0389
Kohota Lane	445	RES			M		
Kuehn Avenue	562	RES			M		
Lacross Court	987	RES			R		
Lafayette Street	787	CON		<18'	AdqtM	50	1185
Lake View Court	828	F RES			M		
Lakemont Drive	827	RES			M	1466	0986
Lakeshore Court	981	RES			R		
Lakeshore Drive	979	RES			R		
Lakewood Drive	825	C RES			M		
Laurel Circle	809	A RES			M	52	0885
Laurel Street	684	RES			F		
Laurent Lane	109	K RES			R		
Laurie Court	109	L RES			R		
Lazer Court	109	M RES			R		
Lewis Avenue	749	CON	1/1	Gold Strike Rd to 0.429, end at Pope St	InadR	754	0590
Lightning Lane	927	CON			M		
Lilac Drive	819	CON			M	327	0986
Lily Gap Folsom Road	241	MIN	1/2	Winton Road to 1.392, goes to 25 zone	B-32M		
Lily Gap Folsom Road	241	MIN	2/2	1.392 to 1.632, end road 8124 <18'	F-99M		
Lily Gap Road	240	MIN	1/2	Winton Rd to 2.513, end pavement <18'	F-25M	96	0985
Lily Gap Road	240	MIN	2/2	2.513 to 4.144, end @ east end @ Winton	F-10M		
Lily Valley Way	242	B LOC	1/1	Meadow Glen Road to 0.059, end	F-16M		
Lime Creek Road	127	MIN	1/1	SHwy 026, east end to west end Hwy 026	B-38R	369	0390
Linda Drive	569	RES			M	1874	0889
Linnet Lane	849	B RES			M		
Little John Road	961	CON	1/1	Copper Cove Dr to 2.802, end	AdqtR	511	0389
Live Oak Court	908	RES			R		
Live Oak Drive	907	RES			R		
Lodge Pole Lane	950	E LOC			M		
Loganberry Lane	560	E RES			M		
Lookout Court	837	B RES			M		
Love Creek Road	380	MIN	1/3	Moran Road to 4.337, end pavement <18'	F-24M	280	0986
Love Creek Road	380	MIN	2/3	4.337 to 4.505 <18'	F-15M		
Love Creek Road (incomp)	380	MIN	3/3	4.505 to 4.774, stopped due to snow <18'	F-15M		
Lower Dorrar Road	212	LOC	1/2	SH 026 to 0.096, end pavement <18'	F-20M		
Lower Dorrar Road	212	LOC	2/2	0.096 to 0.328, end CMR,private gate<18'	F-17M		
Luddy Lane	756	RES			R		
Lumber Avenue	733	RES			AdqtR		
Lynn Court	574	A RES			M	2734	
Main Street - Copper	048	A THR	1/1	SH004 to 0.599, end at O'Byrnes/Reeds	AdqtF	1854	0789 0994
Main Street - Douglas Flt	910	CON	1/1	SH004, east end to 0.703, SH004 west	AdqtR		
Main Street - Jenny Lind	532	LOC			F	277	0390
Main Street - Moke Hill	772	CON			AdqtR	998	0687
Main Street - Murphys	031	A THR	1/1	SHwy 004 to 0.190, end at Big Trees Rd	AdqtF	2400	0692
Main Street - Murphys	031	A THR	1/1	Big Trees Road to 0.500, end French Glch	AdqtF	5247	0789
Main Street - Paloma	692	LOC		<18'	F-99R		
Main Street - San Andreas	012	A THR	1/2	Hwy 49 to 0.058, Court Street	InadM	1616	0792
Main Street - San Andreas	012	A THR	2/2	0.058 to 0.330, end at Gold Strike Road	AdqtM		

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Main Street - Sheep Ranch	871	LOC			M		
Main Street - Vallecito	028	THR	1/2	Hwy 4 to 0.455, Church Street	AdqtR	306	0389
Main Street - Vallecito	028	THR	2/2	0.455 Church St to Parrotts Ferry, end	AdqtR	308	0590
Main Street - West Point	761	COM	1/2	SH026, north end, to 0.257	InadM		
Main Street - West Point	761	COM	2/2	0.257 to 0.350, end at SHwy 026 south	AdqtM		
Main Street - White Pines	804	COM			M		
Mann Street	107	E	RES		R		
Manuel Road	812	COM	1/1	SH004 to 0.207, end	AdqtM	693	0986
Manzanita Drive	378	RES		<18'	F-99M		
Maple Street	809	B	COM 1/1	Manual Rd to 0.216 Lilac Drive	InadM		
Maretta Lane	781	RES		<18'	InadM	46	0687
Marilyn Way	564	RES			M		
Mariposa Street	736	RES.			M		
Market Street	734	RES			C-19M		05/94
Marlette Street	783	RES		<18'	F-99M	136	1185
Marsden Lane	109	Z	RES		R		
Marshall	755	RES			AdqtM		
Marti Court	574	C	RES		M		
Matson Lane	769	RES		<18'	F-99M		
Mauna Kea Court	580	A	RES		M		
Mauna Kea Drive	580	RES			M		
McCall Court	105	D	RES		R		
McCann Drive	109	G	RES		R		
McCarthy Reservoir Road	154	LOC	1/4	Rail Road Flat Road to 0.431 at Y	B-31M	36	0686
McCarthy Reservoir Road	154	LOC	2/4	0.431 to 0.480, end pen <18'	F-24M		
McCarthy Reservoir Road	154	LOC	3/4	0.480 to 0.594, end gravel <18'	F-19M		
McCarthy Reservoir Road	154	LOC	4/4	0.594 to 0.829, end rd 2 reservoir <18'	F-20M		
McClintock Court	109	W	RES		F		
McDaniel Lane	109	Y	RES		R		
McKay's Point Road	382	LOC		<18'	F-99M		
McKenzie Avenue	826	RES			AdqtM	210	0986
Meadow Drive	371	COM	1/4	Blue Lake Springs Dr to 0.149, Cypress	AdqtM	1533	0889
Meadow Drive	371	COM	2/4	0.149 to 1.273	AdqtM		
Meadow Drive	371	COM	3/4	1.273 to 1.719, Rainy Drive	AdqtM		
Meadow Drive	371	COM	4/4	1.719 to 2.153, end at Moran Road <18'	InadM	164	0789
Meadow Glen Road	242	A	LOC	<18'	F-99M		
Meadow Lane	371	A	RES	<18'	F-99M		
Meadowview Road	823	COM	1/1	<18'	F-99M	348	0986
Medina Drive	379	C	RES		M		
Meko Drive	425	MIN	1/1	SH004 to 1.034	C-25M	116	1089
Menominee Court	825	H	RES 1/1		R		
Mercer Cave Road	325	MIN	1/1	Sheep Ranch Rd tp 0.110	F-11M	152	0886
Messing Road	125	MIN	1/3	SHwy 012 to 0.961, begin curves	B-49R	325	0792
Messing Road	125	MIN	2/3	0.961 to 1.192, through curves	C-32R		
Messing Road	125	MIN	3/3	1.192 to 1.676, end at Pettinger Road	B-40R		
Mewe Court	823	E	RES		M		
Mewko Way	423	A	RES		M		
Mewuk Lane	500	B	COM 1/1	Ottawa Drive to 0.50, Blackfoot Circle	F-15M		
Michel Road	133	MIN	1/4	Mt Rnch Rd E end to 0.580, Cave Cty	B-31M	471	0985
Michel Road	133	MIN	2/4	0.580 to 1.032, Cave Cty to Pndrosa <18'	F-30M		

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Michel Road	133	MIN	3/4	1.032 to 1.920, new overlay area	B-42M		
Michel Road	133	MIN	4/4	1.920 to 3.564, W end, Mt R Rd <18'	F-26M	199	0985
Michele Way	578	RES			M		
Middle Drive	372	RES		<18'	F-99M		
Midoo Way	422	RES			M		
Milano Road	773	RES		<18'	F-99M		
Milbar Court	379	E RES			M		
Mill Street	873	LOC		<18'	F-99M	944	0593
Milton Road	053	MAJ	1/3	SH026 to 2.380, Jenny Lind Road	B-45R	874	0892
Milton Road	053	MAJ	2/3	2.308 to 5.845 (through Jenny Lind town)	C-40R	227	1085
Milton Road	053	MAJ	3/3	5.845 to 9.550, end at Stanislaus Co Lin	C-40R	260	1188
Mineral Street	712	RES		<18'	F-99R		
Mira Vista	371	M RES			M		
Mitchel Mill Road	171	LOC		<18'	F-99M		
Mitchell Drive	928	RES			M		
Mitchler Avenue	845	CON	1/2	Main Street Murphys to 0.031, end SH004	AdqtR		
Mitchler Avenue	845	CON	2/2	0.031 to 0.353; <18'	InadR		
Mittleman Court	109	T RES			R		
Miwok Trail	789	RES		<18'	F-99M	114	1285
Mkl Hill Campo Seco TnPk	806	CON	1/2	SH026 to SH049, <18'	F-99M		
Mkl Hill Campo Seco TnPk	806	CON	2/2	SH049 to Center St	M	61	1285
Moaning Cave Road	352	LOC	1/1	Parrotts Ferry Road to 0.893, end	E-22M	297	0792
Moccasin Court	969	RES			R		
Moccasin Street	968	RES			R		
Mojave Drive	409	P RES			M		
Mokel Way	150	C RES			M		
Mokelumne Drive East	374	F RES			M		
Mokelumne Drive West	374	C RES			M		
Monetier Drive	374	M RES			M		
Monge Ranch Road	911	RES		<18'	F-99M	94	0590
Morado Circle	991	RES			F		
Moran Court	563	RES			M		
Moran Place	572	C RES		<18'	F-99M		
Moran Road	037	THR	1/7	SH004, east/upper end to 0.838	AdqtM	1079	0192
Moran Road	037	THR	2/7	0.838 to 1.314, along golf course	AdqtM		
Moran Road	037	MAJ	3/7	1.314 to 3.441	D-33M		
Moran Road	037	MAJ	4/7	3.441 to 4.080, to Love Creek	E-25M		
Moran Road	037	MAJ	5A/7	4.120 to 4.568, straight by flume	F-24M		
Moran Road	037	MAJ	6A/7	4.568 to 4.873, through straightaway	D-34M	625	0589
Moran Road	037	MAJ	7A/7	4.873 to 5.350, end at lower west Hwy 4	InadM	908	0192
Morris Road	831	LOC			F		
Mountain Ranch Road	014	THR	1/4	SH049 San Andreas to 1.4 mi, Mills Ave	AdqtM	5809	0392
Mountain Ranch Road	014	MAJ	2/4	1.4 to 7.665 mi east of SH049	B-44M	1816	
Mountain Ranch Road	014	MAJ	3/4	7.665 to 9.276, thru community area	B-42M	1816	1288
Mountain Ranch Road	014	MAJ	4/4	9.276 to 10.698, end at CDF Esperanza	A-46M	1742	0692
Mountain View	955	LOC			M		
Mulford Court	107	C RES			R		
Muriettas Roost	409	C RES		<18'	InadM		
Murphys Drive	374	RES			M		
Murphys Grade Road	031	MAJ	1/3	SH004/049 in Angels to 2.688	B-47R	4721	0792

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Murphys Grade Road	031	MAJ	2/3	2.688 to 5.288, lower Fr Glch to curves	B-40M	3303	0390
Murphys Grade Road	031	MAJ	3/3	5.258 to 6.367, end at Main St/Upper Frg	C-35M	74597	0792- 2555 1516
Mustang Road	921	RES			M		
Mustang Street	926	RES			M		
Myrtle Street	682	RES			F		
Watches Drive	409	T	RES		M		
Navajo Drive	146	RES			M	482	0989
Nawach Court	446	RES			F		
Neilsen Road	121	A	LOC		M		
Neilsen Street	760	RES	1/1	Main St to end	Adqtm		
Nichols Road	807	LOC		<18'	F-99R		
Noble Road	176	LOC		name changed from Blue Mountain Int Rd	R		
Nola Drive	565	RES			M		
North Bald Mountain Road	244	LOC			M		
Mugget Court	915	F	RES		M		
O'Byrnes Ferry Road	048	MAJ	1/3	Main Street/Reeds Turnpk to 6.606, Poker	A-55R	1950-0908	3021
O'Byrnes Ferry Road	048	THR	2/3	6.606 to 6.900, Poker Flat area	Adqtm	1803-0589	2574 } 0990
O'Byrnes Ferry Road	048	MAJ	3/3	6.900 to 7.431, end at Tuolumne Co Line	D-31M	1950-0589	2344 } 0000
Oak Circle	808	RES	1/1	SH 004 to 0.266, end	InadM	1178-0986	
Oak Park Drive	741	RES			F	980	0593
Oak Park Drive East	741	B	RES		F		
Oak Park Drive West	741	A	RES		F		
Oak Street	680	THR	1/1	Myrtle Street to 0.115, end	InadR	90	0386
Oak Street	738	RES			M		
Oaken Drive	378	C	RES		M		
Oakmont Court	379	J	RES	Calaveritas Rd. to .42	M		
Old Gulch Road	421	MIN	1/2	Calaveritas Rd to 2.028	F-18M		
Old Gulch Road	421	MIN	2/3	2.028 to 3.261; <18'	F-23M		
Old Gulch Road	421	MIN	3/4	3.261 to 3.728, end Michel Rd; <18'	F-20M		
Old School Way	784	RES	1/1	Lafayette to 0.120 end at Church; <18'	InadM		
Olive Orchard Road	551	MIN	1/1	Burson Road to 1.678, end at SH026	B-40R	507	0589
Oro Street	842	C	RES		M		
Osage Circle	149	E	RES		R		
Ospital Road	801	MIN	1/2	SJ Co line to 3.062, Southworth Rd south	B-45R	176	0892
Ospital Road	801	MIN	2/2	Southworth to Southworth, 3.062 to 4.733	R	194	0892
Ottowa Drive	409	S	RES		M	543	0886
Oxbow Court	837	E	RES		M		
Paloma Court	924	A	RES		M		
Paloma Road	061	MAJ	1/3	Daphne St in Valley Springs to 3.979	C-42R	1181	0489
Paloma Road	061	MAJ	2/3	3.979 TO 6.076, curves	C-36M	329	0689
Paloma Road	061	MAJ	3/3	6.076 to 7.820, end at SH026	D-38R	279	0689
Pamela Court	918	B	RES		M		
Pardee Drive	920	RES			M		
Park Drive	741	E	LOC		M		
Parrotts Ferry Road	035	MAJ	1/3	SH004 to 0.959, by Camp Nine Rd	B-47R	12439	0792 2439 - pull
Parrotts Ferry Road	035	MAJ	2/3	0.959 to 2.608, 1988 reconstruction	B	M 1880	0590
Parrotts Ferry Road	035	MAJ	3/3	2.608 to 5.23, end at Tuolumne Co Line	B-42M	12373	0792 2373
Patricia Court	573	A	RES		M		
Patricia Lane	573	RES			M	289	0789
Pattison Road	571	MIN	1/2	Camanche Pkwy to 0.720, begin curves	B-44R		

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Pattison Road	571	MIN	2/2	0.720 to 1.278, end CMR at reservoir	D-27R		
Pawnee Drive	150	F	RES		M		
Pay Dirt Court	409	G	RES		R		
Payette Court	150	D	RES		M		
Pebble Beach Way	582	B	RES		M		
Peek Circle	779	RES		<18'	F-99M	77	1285
Penn Mine Road	591	LOC		<18'	F-99R		
Pennsylvania Gulch Road	402	MIN	1/4	SH004 to 0.593	C-28M	1252	0789
Pennsylvania Gulch Road	402	MIN	2/4	0.593 to 1.2474	C-27M	934	1185
Pennsylvania Gulch Road	402	MIN	3/4	1.247 to 1.7534; <18'	F-22M		
Pennsylvania Gulch Road	402	MIN	4/4	1.753 to 2.497, end; <18'	F-17M		
Penny Lane	713	RES			F		
Persall Avenue	776	RES		<18'	F-99M	104	1285
Petross Street	663	LOC		<18'	F-99F		
Pettinger Road	126	MIN	1/1	SH012 to 2.079, end at Southworth Rd	B-36R	775	0792
Pine Cone Lane	770	RES		<18'	InadM		
Pine Drive	822	CON	1/1	SH004 east to 1.782 end Hwy 4 west	InadM	1178	0789
Pine Knoll Drive	829	RES			M		
Pine Lake Drive	825	B	RES		M		
Pine Street	251	A	CON 1/1	Main Street to 0.142, end at SH026	AdqtM		
Pine Street	686	RES			AdqtR		
Pine Street	737	RES	1/1	Mariposa Street	AdqtM		
Pinecone Drive	384	RES			M		
Piute Circle	409	U	RES		R		
Piute Drive	409	V	RES		M		
Pixley Avenue	745	RES	1/1	Main St to 0.361, end at Court St; <18'	InadM		
Placer Way	915	A	RES		M		
Plaza Street	701	LOC		<18'	F-99F		
Pocatello Circle	409	N	RES		R		
Polly Court	576	A	RES		M		
Pomo Circle	424	RES			F		
Ponderosa Way	213	LOC	1/1	SH026 to 1.870, end Amador Co Line	F-99M		
Ponderosa Way	400	RES			R		
Ponderosa Way	820	A	RES		M		
Ponderosa Way	950	C	LOC		M		
Pool Station Road	010	MAJ	1/2	SH049 to 2.878, RR tracks @ Cement Plant	AdqtR	900	0492
Pool Station Road	010	MAJ	2/2	2.878 to 12.560, end at SH004	D-36R	547	0590
Pope Street	752	CON	1/1	Main Street to 0.769, end at Mt Ranch Rd	AdqtR	1806	0292
Potteroff Road	273	LOC	1/2	Jesus Maria Rd to 0.800	F-20M	52	0686
Potteroff Road	273	LOC	2/2	0.800 fr Jesus Maria to 0.906	F-12M		
Prindle Road	792	RES		portions < 18'	InadM		
Priscilla Court	109	R	RES		R		
Prospect Street	782	RES			M	44	1285
Prussian Hill Road	153	MIN	1/3	Rail Road Flat Rd to 0.297, end overlay	C-25M	215	0686
Prussian Hill Road	153	MIN	2/3	0.297 to 1.586; <18', pen portion	F-18M		
Prussian Hill Road	153	MIN	3/3	1.586 to 2.500 end CMR, <18', gravel	F-18M		
Public Lane	767	RES		<18'	InadM		
Pueblo Trail	977	RES			R		
Pyshon Lane	355	RES			F		
Quail Hill Road	962	RES			R		

all new
assessments

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Quartz Drive	915	C	RES		M		
Rabbit Foot Road	223	LOC		<18'	F-99M		
Rail Road Flat Road	013	MAJ	1/7	Mt Ranch Rd to 1.177, top of spur	A-50M	1528	0692
Rail Road Flat Road	013	MAJ	2/7	1.172 to 2.465, spur grade	E-27M		
Rail Road Flat Road	013	MAJ	3/7	2.465 to 8.678, Swiss Ranch to Ridge	A-48M	547	0692
Rail Road Flat Road	013	MAJ	4/7	8.678 to 10.095, Ridge to Licking Fork	E-28M	798	0692
Rail Road Flat Road	013	MAJ	5/7	10.095 to 12.950, Lick Fork - BlueMt	<18 F-30M	315	0288
Rail Road Flat Road	013	MAJ	6/7	12.950 to 14.362, Blue Mt to Assoc Office	C-35M	1256	0589
Rail Road Flat Road	013	MAJ	7/7	14.362 to 14.767 end, Assoc Office to 26	E-25M	1344	0589
Rail Road Flat Street	156	LOC		<18'	F-99M		
Rainbow Court	828	D	RES		M		
Rainy Drive	572	RES			AdqtM	627	0789
Rawhide Drive	917	RES			M		
Red Hill Access Road	358	MIN	1/1	SH004 to 0.962, Carson St	B-41M	505	0689
Red Hill Road	353	MIN	1/4	SH049 to 1.628, end pen, <18'	F-28M	91	1185
Red Hill Road	353	MIN	2/4	1.628 to 2.744, gravel, <18'	F-20M		
Red Hill Road	353	MIN	3/4	2.744 to 2.987, short O/L, <18'	F-19M	33	0885
Red Hill Road	353	MIN	4/4	2.987 to 3.775, Landfill to Carson St	B-35M	505	0490
Reeds Turnpike	716	CON	1/1	SH004 to 0.959, end O'Byrnes Ferry; <18'	InadR	675	0789
Ridge Road	022	MAJ	1/3	RR Flat Rd to 1.807	C-38M	818	0692
Ridge Road	022	MAJ	2/3	1.807 to 3.371, through curves	C-37M		
Ridge Road	022	MAJ	3/3	3.371 to 3.922, end SH026	B-40M	857	0692
Rippon Road	107	RES			R		
Roan Way	899	RES	1/1	Blackbird to Sorrel	AdqtM		
Roaring Camp Drive	105	RES			R		
Roberts Avenue	753	CON	1/1	Pope Street to 0.066, end at Lewis Ave	AdqtR	433	0390
Rock Creek Court	718	MAJ			F		
Rock Creek Road	051	MAJ	1/4	Milton Road to 2.517, begin curves; <18'	F-35R	79	0390
Rock Creek Road	051	MAJ	2/4	2.517 to 5.870, Salt Springs Resort; <18'	F-24M		
Rock Creek Road	051	MAJ	3/4	5.870 to 8.445, resort to SSV road	C-42R	90	0689
Rock Creek Road	051	MAJ	4/4	8.445 to 14.322, end at SHwy 004, Copper	C-44R	311	0689
Rocky Hill Road	842	A	CON		F		
Rolleri Bypass Road	311	MIN	1/1	SH004 to 0.706, end Angels City Limit	B-30M	498	0290
Rose Street	681	RES			F		
Rufe Lane	356	RES		<18'	InadR		
Russell Drive	560	RES			M	356	0889
Russells Road	730	CON	1/1	SH049 to 0.492, end at Pool Station	AdqtM	315	0590
Ruth Lane	577	C	RES		M		
Salt Springs Trail	950	D	RES		M		
Salt Springs Valley Road	512	A	MIN	1/2 Rock Creek Road to 0.305, end A/C O/L	D-28R	89	0289
Salt Springs Valley Road	512	A	MIN	2/2 0.305 to 1.940, pen to east Hunt; <18'	F-33R	14	0289
Salt Springs Valley Road	512	B	MIN	1/1 west Hunt Road to 2.118, end 512 A; <18'	F-30R	64	0289
San Antone Camp Road	451	LOC		<18'	F-99M		
San Domingo Road	411	MIN	1/3	Sheep Ranch Road to 0.980, end pen; <18'	F-25M	94	0590
San Domingo Road	411	MIN	2/3	0.980 to 3.441, thru dirt; <18'	F-16M		
San Domingo Road	411	MIN	3/3	3.441 to 5.035, end at Dogtown Road; <18'	F-19M	5	0686
San Ramon Road	371	E	RES		M		
Sandi Way	570	B	RES		M		
Sandy Gulch Road	161	MIN	1/1	RRF Rd to 0.281, end Assoc Office; <18'	F-30M		
Sawmill Street	664	RES		<18'	InadF		

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Sawyer Road	226	LOC		<18'	F-99M		
Schadd Road	174	MIN	1/3	Blue Mountain Road to 1.243	C-27M	145	0786
Schadd Road	174	MIN	2/3	1.243 to 2.454, begin gravel; <18'	F-19M		
Schadd Road	174	MIN	3/3	2.454 to 4.353; <18'	F-17M		
Schmauder Mine Road	415	MIN	1/2	Dogtown Road to 0.330; <18'	F-25R		
Schmauder Mine Road	415	MIN	2/2	0.330 to 0.379, end CMR: <18'	F-15R		
School Street	710	RES	1/1	Main St to 0.080, end at Baker Street	AdqtR		
School Street	877	LOC		<18'	F-99M		
Schuman Court	107	D	RES		F		
Scott Road	333	LOC		<18'	F-99M		
Scott Street	313	A	CON 1/2	Main St at Big Trees to 0.042, Jones	AdqtM	382	1188
Scott Street	313	A	CON 2/2	0.042 to 0.261, end Algiers & 6-Mile; <18'	InadM	323	1488
Second Street	816	RES			M	859	0295
Seminole Way	371	J	RES		M		
Sequoia Avenue	687	RES		<18'	InadR		
Sequoia Circle	992	RES			F		
Sequoia Court	992	A	RES		F		
Sequoia Street	812	A	CON		M	159	0586
Shady Circle	819	A	RES	<18'	InadM		
Shady Grove Lane	846	B	RES		M		
Shady Lane	953	LOC			M		
Shannon Court	566	A	RES		M		
Shannon Way	566	RES			M		
Shastan Way	148	A	RES		M		
Sheep Ranch Road	032	MAJ	1/2	Mt Ranch Rd to 4.865, town of Sheep Rnch	C-37M	606	0692
Sheep Ranch Road	032	MAJ	2/2	Sheep Ranch to 8.012, end Main St; <18'	F-28M	377	0692-
Shelton Road	802	MIN	1/1	SH026 to 1.620, end San Joaquin Co Line	B-42R	376	0395
Sherman Lane	862	LOC			M		
Shirley Road	720	LOC			R		
Shirley Way	573	B	RES		M		
Shoshone Drive	409	L	RES		M	72	0889
Sierra Parkway	409	K	CON 1/2	SH004 to 1.479, Boards Crossing	AdqtM	401	0886
Sierra Parkway	409	K	CON 2/2	1.479 to 1.842, end at Topanga	AdqtM	143	0989
Sierra Pine	823	C	RES		M		
Sierra View	371	G	RES		M		
Sierra View	379	D	RES		M		
Signal Hill Trail	972	RES			R		
Silver Drive	915	E	RES		M		
Silver Rapids Road	075	CON	1/2	Hogan Dam Rd to 1.419 at SH 026	B-42R	384	1288
Silver Rapids Road	075	CON	2/2	1.419 to 1.879, SH 026 to end, Heney Ln	B-49R	674	0189
Silver Saddle Court	837	F	RES		M		
Silver Saddle Drive	837	RES			M		
Silverado Way	371	I	RES		M		
Simpson Road	261	LOC		<18'	F-99M		
Sioux Trail	149	D	RES		M	165	1089
Six Mile Road	313	MIN	1/5	SH004 to 1.405, Conservation Camp; <18'	F-25M	117	1185
Six Mile Road	313	MIN	2/5	1.405 to 2.330 at cattle guard	E-21M		
Six Mile Road	313	MIN	3/5	2.330 to 3.950, gravel section	E-20M		
Six Mile Road	313	MIN	4/5	3.950 to 4.242, A/C overlay by pond	C-25M	316	0395
Six Mile Road	313	MIN	5/5	4.242 to 4.626, end Scott/Algiers; <18'	F-27M	122	0886

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Skull Flat Road	245	MIN	1/2	Winton Road to 2.354, end pavement; <18'	F-22M	121	0985
Skull Flat Road	245	MIN	2/2	2.354 to 4.229, end at Lily Gap Rd; <18'	F-15M		
Skunk Ranch Road	403	MIN	1/2	Penn Gulch to 0.762, narrows; <18'	F-24M		
Skunk Ranch Road	403	MIN	2/2	0.762 to 2.610, end at private gate; <18'	F-21M		
Skyline Drive	950	LOC	1/2	SH004 to 1.018; <18'	F-99M		
Skyline Drive	950	LOC	2/2	1.018 to 2.043, end; <18'	F-99M		
Slum Gullion Gulch	409	E	RES		M		
Smith Lane	763	RES		<18'	InadM		
✓ Snow Bird Court	970	RES			Adqt R		
Snow Flake Drive	570	A	RES		M	423	0685
Snowshoe Thompson Drive	410	RES			M		
Sorrel Road	900	RES			R		
South Petersburg Road	124	MIN	1/1	Lime Creek to 1.321, end at Hogan entran	C-33R	389	0390
Southworth Road	554	MIN	1/1	SH012 to 3.386 Burson Rd	B-40M	586	0792
Spink Road	225	THR	1/3	Main Street to 0.142, to Cemetary Ln	AdqtM		
Spink Road	225	MIN	2/3	0.142 to 0.998, incomplete; <18'	F-25M		
Spink Road	225	MIN	3/3	0.998 to end, incomplete; <18'	F-99M		
Spring Valley Road	954	LOC			M		
Spring Valley Way	582	C	RES		R		
St. Andrews Drive	580	B	RES		M		
St. Moritz Drive	374	P	RES		M		
Stag Way	914	B	RES		M		
Stagg Drive	828	B	RES		M		
Stampede Canyon Drive	838	RES			M		
Stanislaus Drive	379	A	RES 1/2	Sierra View to 0.075	M		
Stanislaus Drive	379	A	RES 2/2	0.075 to 0.265, end Hillcrest; <18'	F-99M		
Stanley Road	222	MIN	1/1	SH026 to 1.405, end at Woodhouse Mine	B-30M		0287
Stella Drive	842	B	RES		R		
Stephanie Drive	577	RES			M		
Stevenson Street	775	RES		<18'	F-99M	45	1285
Struckman Road	142	LOC	1/1	Rail Road Flat Road to 0.706, end	F-16M	40	0985
Sugar Pine Way	906	RES			R		
Sultana Road	848	B	RES		M		
Summit Level Road	144	MAJ	1/8	RRF Rd to 2.170, end pavement; <18'	F-24M		
Summit Level Road	144	MAJ	2/8	2.170 to 2.481, gravel section; <18'	F-18M		
Summit Level Road	144	MAJ	3/8	2.481 to 2.636, pen; <18'	F-20M		
Summit Level Road	144	MAJ	4/8	2.636 to 4.051; <18'	F-14M		
Summit Level Road	144	MAJ	5/8	incomplete	M		
Summit Level Road	144	MAJ	6/8	incomplete	M		
Summit Level Road	144	MAJ	7/8	incomplete	M		
Summit Level Road	144	MAJ	8/8	incomplete, end at SH004	M		
Summit View	951	LOC			M		
Summit View Road	820	B	RES		AdqtM		0687
Sunset Street	739	RES			R		
Surrey Court	840	B	RES		AdqtF		
Surrey Lane	840	RES	1/1	Church Street to 0.185, end @ Rocky Hill	AdqtF		
Sweetwater Drive	846	D	RES		M		
Swiss Ranch Road	143	MIN	1/5	RRF Rd to 0.320, end slurry seal	B-32M	270	0692
Swiss Ranch Road	143	MIN	2/5	0.320 to 2.237, road narrows	C-27M		
Swiss Ranch Road	143	MIN	3/5	2.237 to 3.862, to one lane bridge; <18'	F-25M		

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Swiss Ranch Road	143	MIN	4/5	3.862 to 6.659, gravel section; <18'	F-25M		
Swiss Ranch Road	143	MIN	5/5	6.659 to 7.895, end Summit Level; <18'	F-14M		
Tahos Drive	149	A	RES		M		
Tamarack Drive	374	D	RES		M		
Tamarack Frontage Road	956	LOC	1/2	Salt Springs Trail to 0.182; <18'	F-99M		
Tamarack Frontage Road	956	LOC	2/2	0.182 to 0.371, end SH004	M		
Tanner Court	845	B	RES		R		
Tanner Street	845	A	RES		R		
Taos Court	374	E	RES		R		
Teepee Court	966		RES		R		
Telegraph Court	722	LOC	1/2	SH004 to 0.160	R		
Telegraph Court	722	LOC	2/2	0.160 to 0.720, end; <18'	F-99R		
Telegraph Road	721	LOC	1/3	SH004 east to 0.140	C-32R		
Telegraph Road	721	LOC	2/3	0.140 to 2.560; <18'	F-99R		
Telegraph Road	721	LOC	3/3	2.560 to 4.080, end Shirley	R		
Tenaya Court	443		RES		M		
Terrace View	499	B	RES		M		
Teton Court	973		RES		R		
Teton Drive	150	B	RES		M		
Tewa Court	978		RES		R		
The Jug Handle	409	F	RES		M		
The Lane	912		RES		R		
The Park	374	S	RES		M		
Thomes Street	693		LOC		F		
Thunderbolt Trail	925		RES		M		
Tomahawk Trail	982		RES		R		
Tonapah Road	407		LOC		M		
Topanga Lane	444		RES		M		
Toyanza Street	499		RES		M		
Toyon Drive	499	A	RES		M		
Treat Avenue	757	CON	1/1	SH 049/St Charles to 0.198, end at Pope	AdqtR	1211	0390
Upper Dorrday Road	211	LOC	1/1	SH026 to 0.759; <18'	F-20M	135	0886
Upper Moran Road	370		RES	<18'	F-99M		
Ute Place	147	A	RES		R		
Utica Drive	839	B	RES		M		
Utica Powerhouse Road	405	LOC	1/2	SH004 west to 0.530, begin climb; <18'	F-23M		
Utica Powerhouse Road	405	LOC	2/2	0.558 to 1.088, end SH004 east; <18'	F-22M		
Vallecito Bypass Road	401	LOC	1/1	SH004 west to 0.477 SH004 east; <18'	F-24R		
Vallecito Drive	374	A	RES		M		
Valley View Drive	323		LOC		M		
Valley View Drive	825		RES		M		
Venado Drive	848		RES		M		
Vista del Lago	072	CON	1/1	Hogan Dam Rd to 1.376, end at SH026	AdqtR	1800	0888
Vista Drive	820		RES		M		
Wagon Wheel Court	842	B	RES		M		
Walapar Road	500		RES		M		
Wally Hill Road	450		LOC		M		
War Hawk Way	930		RES		M		
Wards Avenue	662		LOC		F		
Warren Road	552	MIN	1/1	SH026 to 3.473, end at Burson Road	B-38R	238	0892

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
Washington Street	892	LOC			R		
Watertown Cutoff Road	138	LOC	1/1	<18'	F-99R		
Watertown Road	060	MIN	1/1	Campo Seco Road to 1.766, end at Paloma	B-37R	644	0489
Watkins Street	847	RES		<18'	InadM		
Wawona Way	371	D RES			M		
Wawona Way	379	B RES			M		
West Murray Creek Rd, M R	131	B LOC	1/3	Whiskey Slide Rd to 1.526, end pen	B-25M	193	0486
West Murray Creek Rd, M R	131	B LOC	2/3	1.526 to 1.805, O/L section; <18'	F-29M		
West Murray Creek Rd, M R	131	B LOC	3/3	1.805 to 3.415, end CMR begin road 8010	B-25M		
West Murray Creek Rd, S A	131	A RES	1/3	Pope Street to 0.287, begin new overlay	D-24M	148	0486
West Murray Creek Rd, S A	131	A RES	2/3	0.287 to 0.890, end O/L at cattleguard	B-35R		
West Murray Creek Rd, S A	131	A MIN	3/3	0.890 to 1.956 end CMR begin 8010; <18'	F-25M		
Wharregard Road	152	LOC	1/1	Rail Road Flat Road to 0.646	F-16M		
Whiskey Slide Road	135	MIN	1/4	Mountain Ranch Road to 0.992, Jose	B-34M	663	1089
Whiskey Slide Road	135	MIN	2/4	0.992 to 2.127, to 44Ranch & W Murray Cr	C-25M		
Whiskey Slide Road	135	MIN	3/4	2.127 to 4.910, end pen; <18'	F-23M		
Whiskey Slide Road	135	MIN	4/4	4.910 to 6.173 end Jesus Maria Rd; <18'	F-21M	25	0686
Whittle Road	491	LOC	1/2	SH049 to end Army Corps construction	R		
Whittle Road	491	LOC	2/2	end reconstruction to 1.453, end CMR	R		
Wikami Way	442	RES			M		
Williams Street	846	RES		Hwy 4 to 0.346, end	Adqtr		
Willow Street	811	RES			M	380	0986
Wingdam Road	104	RES			R		
Winton Road	024	MIN	1/1	SH026 to 1.450	B-43M	1067	0985
Winton Road	264	MIN	1/1	1.450 to 5.134, end at Lily Gap Road	B-39M		
Woodhouse Mine Road	224	MIN	1/4	SH026 to 0.718, end A/C; <18'	F-24M	118	0786
Woodhouse Mine Road	224	MIN	2/4	0.718 to 0.844, pen section; <18'	F-16M		
Woodhouse Mine Road	224	MIN	3/4	0.844 to 1.548, gravel goes to dirt; <18'	F-14M		
Woodhouse Mine Road	224	MIN	4/4	1.548 to 1.841 end at Stanley Road; <18'	F-18M		
Woodland Drive	402	A RES		<18'	InadR		
Worden Road	275	LOC	1/2	Jesus Maria Rd to 1.237; <18'	F-21M	37	0686
Worden Road	275	LOC	2/2	1.237 to 1.311 end Whiskey Slide; <18'	F-24M		
Wrangler Road	837	D RES			M		
Wyldewood Drive	846	C RES			M		
Yana Lane	427	RES			M		
Yuma Court	974	RES			R		
Yuma Way	149	B RES			M		
Yuroc Drive	150	J RES			M		
Zumwalt Way	786	RES			M	114	1185
Zuni Drive	150	A RES			M		

zzzaLEGEND "F"

zzzbLEGEND "R"

zzzcLEGEND "M"

zzzdLEGEND "F-99"

zzzeLEGEND "<18'"

F = FLAT TERRAIN, 0 - 5% SIDE SLOPE

R = ROLLING TERRAIN 5% - 15% SIDE SLOPE

M = MOUNTAINOUS TERRAIN >15% SIDE SLOPE

LOS of F due to width <18' speed unknown

ROADS HAVING WIDTHS OF LESS THAN 18 FEET

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NAME	NUM	CLA	SEG	START_POIN	SLVL	ADT	DATE
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TOTALS:

Printed 945 of the 957 records.

PRIMARY SORT FIELD: NAME

SELECTION CRITERIA:

All records

Explanation of Sources and Dates for Study

References

The study was conducted in accordance with the guidelines of the Committee on Human Subjects of the University of California, San Diego. The study was approved by the Institutional Review Board of the University of California, San Diego. The study was conducted in accordance with the guidelines of the Committee on Human Subjects of the University of California, San Diego.

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IV

References

CONSERVATION ELEMENT APPENDIX

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Conservation Element Study Data

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Explanation of Sources and Terms for Soils

Information Sources

The most complete soils information available for Calaveras County is a general soils map prepared by the U.S. Soil Conservation Service in 1966. The map was compiled from field observations and detailed soil maps available at the time. The different soils types found in an area are the result of many years of weathering base rock material, and as such they do not vary over relatively short periods of time. The descriptions of the soils noted in the 1966 report will still, therefore, be accurate.

However, the soil type names will not be accurate. In most areas of the state, the Soil Conservation Service has prepared detailed soil maps that use a uniform naming system. The naming system used in the 1966 report will not correspond to the national names. For this reason, we have avoided specifically naming the soils groups. The discussion is generalized around groups of similar soils and their approximate location as noted on Soil Types map, Conservation Element, Page VII-6.

Soils Classifications

The Soil Conservation Service classifies each soil type according to its ability to support cultivation. In general, Class I soils have few limitation that restrict their use. Class II soils have some limitation that reduce the choice of plants or require moderate conservation practices.

Class III soils are suitable for cultivated crops but require additional conservation practices to offset or overcome inherent soil limitations. The choice of plants may also be restricted. Soils in Class IV have very severe limitations that restrict the choice of plants, require very careful management, or both.

Soils classified as Class V, VI, VII, or VIII are generally not suitable for cultivation. Class V soils have little or no erosion hazard, but have other limitations that are impractical to remove. Class VI and Class VII soils have severe limitations that make them generally unsuited for cultivation. Class VIII soils have limitations that restrict their use for recreation, wildlife, water supply, or aesthetic purposes.

Limitations for Septic Tank Use

Almost all the soils in the county have severe limitations for septic tank use. This assessment is based on factors such as soil depth, slope, permeability, percolation rate, water table, soil drainage, and overflow or flooding hazards. With careful design, soils with severe limitations can generally still support septic tanks at a density of one dwelling unit per acre.¹ Applicants for new subdivisions outside of wastewater treatment service areas should provide soils and engineering reports to show

¹ Sites with steep, rocky slopes may have difficulty engineering a suitable septic system on a one-acre parcel. The County Health Department may be able to assist the Planning Department in identifying areas in the county that routinely have difficulty in providing adequate septic systems.

that all newly created lots can be adequately served by a septic system. The classifications for septic tank limitations are the following:

Slight. Soils with slight limitations have a permeability rate greater than 1.0 inches per hour; a percolation rate faster than 45 minutes per hour; effective soil depth below tile trench floor greater than four feet; a seasonal water table below four feet; drainage somewhat better than some-what poorly drained; slopes less than five percent; no overflow hazard; and hard rock or permanent water table more than six feet.

Moderate. Soils with moderate limitations have a permeability rate greater than 0.63 inches per hour; a percolation rate faster than 75 minutes per hour; effective soil depth below tile trench floor two to four feet; a seasonal water table between two and four feet; drainage better than poorly drained; slopes less than nine percent; an overflow problem of no more than once in 10 years; overflow duration less than 48 hours; and hard rock or permanent water table between four and six feet.

Severe. Soils with severe limitations have a permeability rate less than 0.63 inches per hour; a percolation rate slower than 75 minutes per hour; effective soil depth below tile trench floor less than two feet; a seasonal water table above two feet; drainage class of poor or very poor; slopes greater than nine percent; overflow problems one year in five; overflow duration greater than 48 hours; and hard rock or permanent water table less than four feet.

Soil Shrink-Swell Behavior Classes

All soils will change in volume with a change in moisture content; this is referred to as the shrink-swell characteristic. The change in volume is influenced by the kind and amount of clay in the soil. The limitations are ranked as low (mostly sand and silt), moderate (silty clay loam and heavy silt loams with some clay materials), and high (clay loams and clays). Shrinking and swelling of soils can cause damage to building foundations, basement walls, roads, and other structures unless special designs are used. A high shrink-swell potential indicates that special designs may be needed as part of building construction.

Soil Corrosiveness

Soil corrosiveness relates closely to the physical, chemical, and biological characteristics and quality of the soil. Structural materials such as metal or concrete pipe, will corrode when buried, but the rate of corrosion will depend on the nature of the soil.

The degree of soil limitation for each soil group is expressed as slight, moderate, or severe. *Slight* indicates soils that are generally favorable for the specified use. *Moderate* indicates that limitations, although unfavorable, can be overcome by special planning and design. *Severe* indicates that construction limitations are unfavorable or difficult to overcome.

1.0 Soils

Figure 6 shows nine soil groups for Calaveras County. This section briefly describes the characteristics of the soil groups according to their value as agricultural lands, erosion hazard, ability

to support septic tank leach fields, shrink-swell characteristics, and corrosiveness. For an explanation of sources and terms, refer to the conservation element appendix.

Descriptions of Soils Groups

Group 1

The Group 1 soils are areas dominated by very deep alluvial soils. These pockets of deep alluvial soils are found mostly in the western portion of the county. The soils have good to moderately good drainage and slight to moderate erosion hazard. These soils are generally fertile and suitable for cultivation.

A thin finger of Group 1 soil borders Highway 26 as it enters the county from the west. The soil is rated as Class I. There are severe limitations on septic tank use and shrink-swell behavior is moderate. Corrosiveness is also moderate.

Another finger begins farther north and parallels Highway 26 until it intersects with Highway 12. This soil is not of the same quality and is rated as Class IV. There are severe limitations on septic tank use, shrink-swell behavior is moderate, and corrosiveness for untreated steel pipe is low.

A third area, classified as Class II soil, is currently used for agriculture production. This pocket can be found in the flat area just east of Salt Spring Valley Reservoir. These soils are severely limited for septic tank applications. There are moderate limitations on septic tank use. The shrink-swell behavior is moderate, and corrosiveness is moderate also.

Group 2

Group 2 denotes areas dominated by shallow, well-drained gravelly soils with finer subsoils. Almost all of these soils can be found at the north west corner of the county, and continuing south along the San Joaquin County and Stanislaus County borders. The soils have good natural drainage and a slight to moderate erosion hazard. This group is designated as Class VI soils.

The areas north of Highway 12 and south of Highway 26 can support perennial grasses and can be used for rangeland. Rocky areas will limit, but not prevent, use of the soil for crop cultivation. Adequate plant residue must be left to maintain high production levels and prevent active erosion. Typical uses are rangeland and orchards. The area roughly bounded by Highway 12 and Highway 26 is generally not as fertile, although it is still suitable for rangeland.

The soils in this group have severe limitations on septic tank use. Shrink-swell behavior is moderate and corrosiveness is low to moderate.

Group 3

Group 3 soils are moderately deep and moderately coarse textured materials over sandstones and volcanic ash. These soils are only on the western border of the county just south of Highway 12 as it enters the county. The soils have good natural drainage and a slight to moderate erosion hazard. Much of this land is used for cattle range. Where water is available, this land can be used for irrigated crops such as deciduous orchards and irrigated pastures. This land requires careful irrigation

management because the soils are strongly sloping to moderately steep, are only moderately deep, and have a slow surface permeability.

Septic tank limitations are severe, shrink-swell behavior is low, and corrosiveness is low.

Group 4

The Group 4 soils form a wide band that roughly parallels the western county border. The soils are shallow and have a rocky texture. The base rock is slate and serpentine. Currently, these soils support annual grasses and some oaks and brush. The soils have good natural drainage and a slight to moderate erosion hazard. Most of the soils in this group are rated as Class IV. The soil does not hold much water and requires frequent, light watering. This soil is used mostly as rangeland.

There are severe limitations on septic tank use. However, shrink-swell behavior and corrosiveness are low.

Group 5

The Group 5 soils support a cover of annual grasses and oaks, although scattered conifers can sometimes be found on north-facing slopes. These soils are deep to shallow, well-drained, slightly acid, and rocky. There are occasional outcroppings of rock. The base rock can be greenstones, limestones, volcanic rock, or granite. Drainage is good with slight to moderate erosion hazard.

The soils in this group are classified as VII. The soil is very stony or very rocky and is moderately fertile at best. The soils are, however, suitable for rangeland. Limitations on septic tank use are severe, and the shrink-swell behavior is high. Corrosiveness for untreated steel pipes is moderate.

Group 6

The central portion of the county is typified by acid, rocky, or stony soil over slate rock. Conifers grow well in this soil, although there will be occasional pockets of oaks, shrubs, and grasses. The soils in this group have severe limitations on septic tank use. The shrink-swell behavior is moderate, and corrosiveness is moderate.

The northern half of this soils group is ranked as Class VI, while the southern half is ranked as Class VII. The Class VI soils can be used for annual range and irrigated orchards (where water is available). Class VII soils are shallow, rocky, and hold very little water. Erosion hazard is moderate to severe. These soils are best suited to open rangeland, although usable forage production is low. This soil is not suitable for producing timber.

Group 7

The northeastern portion of the county is dominated by bands of Group 7 and Group 8 soils. Group 7 has coarse to moderately coarse, acid soils over weathered granite. The soils support a cover of conifers, oak, cedar, brush, and scattered perennial grasses. Natural drainage is good, but erosion hazard is moderate to high.

The soils in this group have severe limitations on septic tank use. The shrink-swell behavior is low and corrosiveness is low.

Group 8

The soils of this association are formed from volcanic rocks, cobbles, and ash that had been cemented together. They are moderately deep, well-drained, acid soils that contain cobbles. The soils are generally on moderately sloping to moderately steep lava caps. The soils support conifers, oaks, brush, and scattered perennial grasses. Natural drainage is good, but erosion hazard is moderate to high. These soils are ranked as Class VI and are best suited for timber production.

The limitations on septic tank use are severe, but the shrink-swell potential and corrosiveness are low.

Group 9

The final group of soils are actually rocky outcroppings, where the soil mantle is less than 2 inches thick. There may be more than 50 percent exposed rock or partly weathered rock. Erosion hazard is very high and fertility is extremely low. These areas are suited to watershed and wildlife and recreation use. The limitations on septic tank use are severe. Shrink-swell potential and corrosiveness are low.

MINERALS FOUND IN CALAVERAS COUNTY

Asbestos

DMG data indicate that there are two mining operations whose principal product is asbestos, located southeast of Copperopolis near the Tuolumne County border. These mines are operated by Calaveras Asbestos, Ltd.; however both operations are currently listed as idle. Earlier information indicates that several small asbestos prospects existed northwest of San Andreas; however, there is no current information about these sites.

Chromite

Several chromite operations exist in Calaveras County; however, according to DMG, all 13 of the operations are currently idle. The mines are located in three general areas; five to 10 miles southeast of Copperopolis, about five miles north of Copperopolis, and about five miles northeast of Angles Camp.

Copper

As noted above, copper has played a significant role in the mineral history of Calaveras County, particularly during the Civil War era, and more recently during World War II. Calaveras County has been the leading producer of copper within the region known as the Sierran Foothill copper belt.

DMG information lists three existing copper mines that are presently classified as idle. The North Keystone mine is located about 10 miles southeast of Copperopolis, near the Tuolumne County

border. Pacific Mine lies about halfway between the North Keystone mine and Copperopolis. The Penn mine is about 15 miles northwest of San Andreas, just south of the Mokelumne River.

Gold

As discussed above, gold has been the most sought-after mineral resource in Calaveras County. Literally hundreds of gold mining operations have occurred in the county in the past; many were simply small panning claims from the gold rush days. DMG information indicates more than 20 existing gold mines in the county, although 10 are listed as currently idle. Placer gold² mining operations exist north and east of Angels Camp, as well as the area north of San Andreas.

Several lode gold operations exist in the vicinity of West Point in northern Calaveras County, as well as the southwestern portion of the county near Copperopolis. There are also a few lode gold mines in the central portion of the county (see Mine Locations map, Conservation Element, Page IV-13). Many of the gold mines produce other minerals, such as silver and copper, as by-products.

Nickel

Nickel silver has been found in small amounts in Calaveras County. Two principal areas having geologic characteristics favorable to the existence of nickel are located just north of Valley Springs and southeast of Copperopolis. There are two nickel mines listed by DMG in the county: Copperopolis Nickel Prospect and Valley Springs Nickel Prospect. The operational status of both mines is unknown.

Sand, Gravel and Stone

While gold has been the most important mineral resource in the past, sand and gravel operations have recently become more prominent, particularly in the western part of the county. Sand and gravel is used primarily in the construction industry as a base for concrete and asphalt. DMG information shows at least four producing sand and gravel operations, and several other idle operations.

Several stone quarry operations operate in Calaveras County, primarily producing construction base rock, portland cement concrete, shale, and limestone. Calaveras Cement Company, also known as Genstar, owns five stone quarries in the vicinity of San Andreas that provide base materials for the manufacture of cement; all are presently idle. From the 1950s to 1980, Calaveras Cement Company was the major mining operation in the county, at times employing more than 400 people.

Other Minerals

Small amounts of other mineral resources have been produced in Calaveras County, including manganese, silica, and talc. The two talc mines, located near Angels Camp, are presently producing.

²

Placer gold refers to gold found in alluvial deposits such as river rocks. Lode gold refers to gold that occurs as veins within other types of rock.

DMG employs a classification system that estimates the potential for various mineral resources. This rating system is used to evaluate the potential of various minerals based on their genetic origin, i.e., volcanic processes. Industrial mineral deposits (such as carbonate rock, asbestos, talc, and silica) are classified as a group rather than on a genetic basis (California Department of Conservation Division of Mines and Geology, 1989).

MRZ-1. Areas where available geologic information indicates there is little likelihood for the presence of mineral resources.

MRZ-2a. Areas that contain significant measured or indicated reserves.

MRZ-2b. Areas where geologic information indicates that significant inferred resources or demonstrated sub-economic resources are present.

MRZ-3a. Areas likely to contain undiscovered mineral deposits similar to known deposits in the same producing district of region (hypothetical resources).

MRZ-3b. Areas judged to be favorable geologic environments for mineral resource occurrence, but where mineral discoveries have not been made in the region (speculative resources).

MRZ-4. Areas where geologic information does not rule out either the presence or absence of mineral resources.

EXISTING MINES IN CALAVERAS COUNTY

The following table lists mines in Calaveras County registered with the California Division of Mines and Geology (DMG). The information has been extracted from the MINEFILE.DBF computer database maintained by DMG, and has been updated. The data include the mine name, company operating the mine, its main products, and the current operating status of the mine; however, the database does not contain complete information for all mines.

TABLE 1-9				
MINERAL OPERATIONS				
Calaveras County, 1991				
Map #	Name of Mine	Operator	Products	Status
1	All Rock Quarry	McLaughlin	Stone	Producing
2	Alta Mine		Chromite	Idle
3	Altaville Drift Mine	Miller Mining	Gold, sand, gravel	Abandoned
4	Alto Gold Prospect	Glamis Gold	Gold, silver	Reclaimed
5	Big Seven Mine	Seremin	Gold, sand, gravel	Exploration
6	Black Bear Manganese Prospect		Manganese	Idle
7	Blackstone Mine	U.S. Gold Mines	Gold, silver	Intermittent
8	Blazing Star Mill	Troy Gold	Gold, silver	Abandoned
9	Bowie Estate		Chromite	Idle

TABLE 1-9
MINERAL OPERATIONS
Calaveras County, 1991

Map #	Name of Mine	Operator	Products	Status
10	Broglio Quarry	Rhyolite Products	Stone	Idle
11	Calaveras Central Mine	Miller Mining	Gold, sand, gravel	Idle
12	Calaveras Shale Quarry No. 2	Calaveras Cement	Shale, stone	Idle
13	Calaveras Shale Quarry No. 6	Calaveras Cement	Shale, stone	Idle
14	Calaveras Shale Quarry No. 7	Calaveras Cement	Shale, stone	Idle
15	Camp Connell Quarry	Claude C. Wood	Stone	Idle
16	Campo Seco Silica Sand Pit	Calaveras Cement	Specialty sand	Idle
17	Carson Hill Mine	Hill Gold Mining	Gold, silver, uranium	Reclaiming
18	Cassinelli Mine	Gutenberger	Gold, sand, gravel	Idle
19	Cataract Quarry	Calaveras Cement	Limestone	Idle
20	Chili Gulch Pit	Wolin and Sons	Sand, gravel, gold, silver	Producing
21	Clary Chromite Prospect		Chromite	Idle
22	Collier gold Mine		Gold, silver	Idle
23	Copperopolis Mill	Calaveras Asbest.	Asbestos	Abandoned
24	Copperopolis Nickel Prospect		Nickel	Undetermined
25	Copperopolis Quarry	Calaveras Asbest.	Asbestos	Idle
26	Covote Creek Pit	Charles I. Baldwin	Sand, gravel	Abandoned
27	Davis Mine		Chromite	Idle
28	Dogtown Pit	Dogtown Sand & Gravel	Sand, gravel, gold	Undetermined
29	Ellingwood Chromite Prospect		Chromite	Idle
30	Ellingwood Mine	Stockton Water	Chromite	Idle
31	Flume House Mine	Flume House Mining	Gold, sand, gravel	Undetermined
32	Garnet Hill Mine		Tungsten	Idle
33	Golden River Mine		Gold, sand, gravel	Idle
34	Green Quarry	Sonora Aggreg.	Decorative rock, stone	Idle
35	Hesseltine Pit	Teichert	Sand, gravel	Reclaimed
36	Hinch Mine	John R. Leimback	Chromite	Idle
37	Holbrook Chromite Prospect		Chromite	Idle
38	Holland Mine		Gold, silver	Idle
39	Jack Rabbit Mine	Miller Mining	Sand, gravel, gold	Exploration
40	K.R. Mine	Cyprus Western	Talc	Exploration

TABLE 1-9
MINERAL OPERATIONS
Calaveras County, 1991

Map #	Name of Mine	Operator	Products	Status
41	Lee Acres Sand Pit	Charles I. Baldwin	Sand, gravel	Reclaimed
42	Liberty Mine		Chromite	Idle
43	Lloyd Mine	Huje Enterprises	Gold, silver	Unknown
44	Main Lode Gold Prospect	Fike & Menter	Gold, silver	Proposed
45	Mangante Pit	Jim Mangante	Sand, gravel, gold	Idle
46	Mavtlower Chromite Prospect		Chromite	Idle
47	McCarty Sand Pit	Ford Construction	Sand, gravel	Producing
48	Mokelumne Hill Pit	Sport Hill Sand and Gravel	Sand, gravel	Producing
49	Mole Hill Gang Prospect	Joseph Folsom	Gold, silver	Undetermined
50	Monahan Pit	Teichert	Sand, gravel	Reclaimed
51	Napoleon Mine		Gold, silver, copper	Idle
52	Nesler Gravel Pit	William A. Nesler	Sand, gravel	Undetermined
53	New Hogan Quarry	Ford Construction	Stone	Producing
54	North Keystone Mine		Copper, gold, silver	Idle
55	Pacific Mine		Copper, gold, silver	Idle
56	Penn Mine	New Penn Mines	Copper, gold, silver	Idle
57	Pennsylvania Gulch Pit	Sierra Rock	Sand, gravel	Idle
58	Quail Hill Mine		Gold, silver	Idle
59	Red Hill Quarry	Cyprus Western	Talc	Producing
60	Robie Ranch Pit	Teichert	Sand, gravel	Idle
61	Royal-Mountain King Mine	Meridian Gold	Gold, silver	Reclaiming
62	Sheep Ranch Mine	Cal-Am Corp.	Gold, silver	Incommunicado
63	Snyder Ranch Quarry	Rhvo-Roc	Stone, pumice	Producing
64	Stockton Jenny Lind Pit	Stockton Sand & Gravel	Sand, gravel	Proposed
65	Teichert Jenny Lind Pit	Teichert	Sand, gravel, gold	Reclaimed
66	True Blue Chrome Mine	Sheppard	Chromite	Idle
67	Union-Rathgeb Mine	Joe Folsom	Gold, silver, uranium	Idle
68	Valentine Mine	John Valentine	Gold, sand, gravel	Idle
69	Vallecito Quarry	Don Wilson	Limestone	Undetermined
70	Valley Springs Nickel Prospect		Nickel	Undetermined
71	Vogelgesang Mine		Chromite	Idle

TABLE 1-9				
MINERAL OPERATIONS				
Calaveras County, 1991				
Map #	Name of Mine	Operator	Products	Status
72	W R Mine	Walter Gabrys	Gold, silver	Producing
73	Wallace Pit	Tony Meath	Sand, gravel	Abandoned
74	Wallace Pit No. 1	Teichert	Sand, gravel	Idle
75	Wallace Pit No. 2	Teichert	Sand, gravel	Idle
76	Ward Chromite Prospect		Chromite	Idle
77	Yellow Aster Mine	Yellow Aster Mining	Gold, Silver	Intermittent
78	Gwin Mine		Gold	Abandoned

Source: California Division of Mines and Geology, 1991.

DESCRIPTION OF SUBJECT CHARACTERISTICS

Demographic Characteristics

Children and adolescents were recruited from a variety of sources, including the local health department, local health care providers, and local youth centers. The sample was selected to represent the community in terms of age, sex, and ethnicity. The sample was selected to represent the community in terms of age, sex, and ethnicity. The sample was selected to represent the community in terms of age, sex, and ethnicity.

Comparison and Control Characteristics

The comparison and control groups were selected from the same sources as the study group. The comparison group consisted of children and adolescents who were not in the study group. The control group consisted of children and adolescents who were not in the study group.

V

OPEN SPACE ELEMENT APPENDIX

The Open Space Element is a key component of the General Plan and is intended to provide a framework for the development of open space in the community. The Open Space Element is intended to provide a framework for the development of open space in the community. The Open Space Element is intended to provide a framework for the development of open space in the community.

Objectives and Goals

The Open Space Element has several objectives and goals. The first objective is to provide a framework for the development of open space in the community. The second objective is to provide a framework for the development of open space in the community. The third objective is to provide a framework for the development of open space in the community.

Implementation Strategy

The Open Space Element is implemented through a variety of strategies. The first strategy is to provide a framework for the development of open space in the community. The second strategy is to provide a framework for the development of open space in the community. The third strategy is to provide a framework for the development of open space in the community.

DESCRIPTION OF HABITAT COMMUNITIES

Grassland Communities

Grasslands with native perennial bunch grasses originally covered much of the Central Valley floor, but with irrigation most of this habitat has been converted to agricultural or urban uses. Many alien plant species now dominate the region including wild oats, brome, and foxtail. Common native wildflowers in the grasslands are California poppy, buttercups, goldfields, lupines, buckwheat, fiddleneck, and clovers. Resident animal species include western toad, southern alligator lizard, common king snake, western rattlesnake, mourning dove, horned lark, western meadowlark, valley pocket gopher, and the California ground squirrel.

Chaparral and Shrub Communities

Chaparral (Spanish for scrub oak) and shrub communities are characterized by dense, impenetrable thickets of woody, evergreen plants with thick, leathery leaves. These communities extend from the lower elevation foothills to the crest of the Sierra Nevada mountains. Within Calaveras County, there are three chaparral and shrub communities: (see Vegetation Data map, Open Space Element, Page V-3)

Chamise Chaparral

Pure stands of chamise, or greasewood, are found on dry, south-facing slopes below the 4,000 foot elevation. This habitat is adapted to the hot, dry summers and quickly re-sprouts after wildfires. During the first three years after a fire, grasses are generally abundant, then the chamise plants grow taller forming a close canopy. The grasses recede and the understory becomes mostly bare ground until the next fire cycle.

Mixed Chaparral

Mixed chaparral is usually present in the foothills on wet or north-facing slopes or at higher elevations than the chamise chaparral. This habitat has a wide variety of plants including monkeyflower, ceanothus, manzanita, scrub oak, poison oak, and California buckeye. Wildlife species commonly found both in chamise and in mixed chaparral include the western rattlesnake, California quail, scrub jay, wren, brush rabbit, and mule deer.

Montane Chaparral

Montane chaparral is generally present at higher elevations than chamise or mixed chaparral, and is often associated with conifer forests up to the 9,000 foot elevation. Compact and low to the ground, montane chaparral typically forms a dense thicket less than six feet tall. This community occurs in recently burned areas or areas disturbed due to logging or avalanche. Common plants include greenleaf manzanita, snow bush, chinquapin, huckleberry, and oak. This habitat provides important foraging for migratory deer. Other wildlife species commonly associated with this community include orange-crowned warbler, rufous-sided towhee, brush rabbit, and dusky-footed woodrat.

Woodland Communities

This is the dominant community which covers most of the lowlands to 3,000 feet in the western portion of the county. Characterized by moderately spaced stands of oak trees with an understory of grasses or shrubs, these woodlands occur on well-drained soils. Woodlands provide important habitat for wildlife because they are structurally complex and diverse; they occur at lower elevations with mild temperatures; and they produce acorns, an important food source. Characteristic bird species in woodlands include California quail, hawks, turkey vultures, scrub jay, acorn woodpecker, and great horned owl. Resident reptiles are western rattlesnake, gopher snake, and common kingsnake; common mammals are western gray squirrel, gray fox, bobcat, coyote, and mule deer.

Valley Oak Woodland

Valley oak woodlands commonly occur on deep alluvial soils of valley flood plains. The community varies from open savannas to dense forest-like stands of massive, deciduous valley oaks with understories of annual grasses and herbaceous plants.

Blue Oak Woodland

This plant community dominates the foothill woodlands of the Sierra and occupies slopes of moderate steepness, on shallow, rocky soils of moderate moisture. Spindly, deciduous blue oaks can form a savanna with an understory of annual grasses or can be associated with an understory of shrubs such as poison oak, buckbrush, manzanita, or California coffeeberry.

Blue Oak-Digger Pine Woodland

This woodland is dominated by the deciduous blue oak and the evergreen digger pine, with the interior live oak also present. The understory is commonly a mixture of annual shrubs and grasses similar to those in the blue oak woodland community.

Hardwood Forest Communities

Hardwood forests are dominated by broad-leaved deciduous and evergreen tree species, however some conifer trees may also be present. Hardwood forest communities include the montane hardwood and montane hardwood-conifer forests along drainages of the major rivers and streams at middle elevations on the west slope of the Sierra Nevada, and aspen forests at high elevations. Valley pocket gopher, Swainson's thrush, Stellar's jay, deer mouse, mule deer, and black bear are found in these communities.

Montane Hardwood Forest

Montane hardwood forests are comprised of a mixture of trees that occur on rocky, poorly developed, and well-drained soils associated with the slopes of major river canyons. At lower elevations, common species include canyon live oak, digger pine, tan oak, Pacific madrone, and California bay. Black oak and Douglas fir may occur at higher elevations.

Common shrubs in the montane hardwood forest are wood rose, snowberry, manzanita, and poison oak.

Montane Hardwood-Conifer Forest

Montane hardwood-conifer forests include components of both conifer forests and hardwood forests. This is a transitional plant community between the montane hardwood, mixed chaparral, and woodlands of low elevation and the conifer forests of high elevations. Common associates include California black oak, ponderosa pine, Douglas fir, white fir, and incense cedar.

Conifer Forest Communities

Conifer forest communities form the dominant vegetation type for Calaveras County above the 2,500 foot elevation, which basically account for the eastern half of county. These forests cover valuable watersheds that yield water for domestic and agricultural use, provide timber for commercial logging, and provide extensive recreational opportunities. Because of the large area covered by these forests and the range of environmental factors affecting this area, five distinct types of conifer forest are described in Calaveras County.

Ponderosa Pine Forest

Ponderosa pine tolerates hotter and drier locales than most other forest conifers. Due to this, they are found at the lower limit of the forest where precipitation is low. These forests can be open, park-like forests limited to ponderosa pine or they can take the form of dense forests where the ponderosa pine is associated with other species such as the white fir, Douglas fir, or sugar pine.

Sierran Mixed Conifer Forest

Sierran mixed conifer forest is present in the central portion of Calaveras County between 2,000 to 6,000 feet. As many as five or six different conifers may be found together including ponderosa pine, white fir, incense cedar, sugar pine, Jeffrey pine, and giant sequoia. Black oaks are also associates. Common shrub species are deerbrush, manzanita, Sierra gooseberry, and mountain misery.

White Fir Forest

White fir forests are present above the 5,000 foot elevation, between Sierran mixed conifer and red fir forests. These forests generally grow on coarse, well-drained soils on cool north and east-facing slopes. White fir trees do not have a long life span compared to other conifer trees, and often contract diseases that weaken the trees. As a result, tops and large limbs break and fall, providing snags and cavities well-suited for nesting habitat. Cavity-nesters such as the pygmy nuthatch, red-breasted nuthatch, pileated woodpecker, and hairy woodpecker are present. The white fir forest is more lush in terms of shrubs, herbs, and wildflowers than most other Sierran forest communities.

Lodgepole Pine Forest

Lodgepole pine forests are symbolic of the High Sierra. Found at elevations between 6,000 and 8,000 within Calaveras County, these forests are characterized by stands of similarly sized trees and a sparse understory. These trees are able to tolerate a wide range of soil and moisture conditions, but are most often associated with streams and meadow borders. Diversity of wildlife species is low in this plant community because of the correspondingly low diversity of tree and shrub species that provide food and habitat.

Red Fir Forest

These dense, shady forests are present between 6,000 and 8,000 feet in the county on fairly deep, well-drained soils. In mature stands, no other tree species are found because of the dense canopy formed by the red firs and the thick layer of needles on the forest floor. Animal life is scarce because of the shortage of food sources. Woodpeckers and other birds feed high in the canopy. Occasionally, lodgepole pine or aspen may be found near wet meadows or riparian areas within the red fir forest.

Riparian Communities

Riparian communities are present along all watercourses and are one of the most important wildlife habitats in California. All perennial streams, most intermittent streams, and most lakes and reservoirs have some riparian vegetation.

Valley Foothill Riparian Forest

Valley foothill riparian forests are located in the Central Valley and Sierra Nevada foothills in western Calaveras County. The community is generally associated with slow-moving streams that flow through valleys and rolling hills.

Dominant tree species are Fremont cottonwood, western sycamore, and valley oak. The understory typically consists of a shrub and herbaceous layer. Common shrubs include wild rose, California blackberry, blue elderberry, poison oak, and willows.

The herbaceous layer consists of monkeyflower, miner's lettuce, sedges, rushes, grasses, and nettles.

Many creatures visit the riparian woodland from nearby communities, but the following are some common resident species: tiger salamander, wood duck, belted kingfisher, great blue heron, black phoebe, willow flycatcher, yellow warbler, raccoon, striped skunk, gray fox. Valley foothill riparian forest also provides travel corridors for larger mammals including the mule deer, coyote, and mountain lion.

Montane Riparian Forest

These are present in the Sierra Nevada below 8,000 feet and are associated with shallow lakes and ponds, seeps and meadows, and rivers and streams. Common plants are white alder, aspen, black cottonwood, dogwood, willows, and wild azalea.

At this higher elevation, snowfall becomes the main source of precipitation. Animals found here include Clark's nutcracker, great horned owl, Belding's ground squirrel, mule deer, and black bear.

Developed Lands

Developed lands are those that do not support native plant communities or vegetation. These artificial or non-native habitats are agricultural lands, rangelands, and urban lands.

Agriculture and Rangeland

Includes annual grasslands, pasture, cropland, and orchards on flat to gently rolling terrain. Locations of agricultural lands include: vineyards in the Murphys, San Andreas, and Burson areas; Christmas tree farms near West Point; mixed agricultural use northeast of Salt Springs Valley Reservoir; and generally in the western section of the county.

Agricultural croplands provide limited habitat diversity because they are frequently manipulated during the harvest and planting cycles. Common rodents are present in the fields and provide prey for red-tail hawks and marsh hawks.

Undeveloped rangelands do provide important habitat for wildlife, especially where water is available. Wildlife species in the rangeland habitat are similar to those in grasslands and woodlands.

Urban

Urban vegetation categories include landscaped strips and medians along transportation corridors, shade trees, lawns, and shrub cover. The structure of the plant community varies with each vegetation category. Urban vegetation is common throughout developed areas, particularly at residences, parks, and schools.

Urban vegetation provides habitat for wildlife that are tolerant of human disturbance. Birds and mammals found in these areas include scrub jay, northern mockingbird, house finch, sparrows, great horned owl, rodents, raccoon, opossum, striped skunk, and the non-native European starling and fox squirrel.

Aquatic Communities

Aquatic communities such as rivers, streams, ponds and lakes, occur in every community previously described in Calaveras County. These aquatic communities provide critical wildlife habitat and serve industrial, agricultural, domestic, and recreational users. Because of their widespread distribution and relatively small individual extent, smaller streams, ponds, stockponds, and wetlands are not comprehensively mapped.

Rivers and Streams

The habitat of rivers and streams includes open water, the bottom substrate, and riparian vegetation. Open water is resting habitat for migrating waterfowl, and habitat for

resident floating insects which in turn provide a food source for amphibians, fish, and birds. In fast-moving riverine habitats, the bottom substrate is rocky and provides habitat for prey consumed by the American dipper. Slow-moving riverine habitats have sandy bottoms favored by freshwater clams, a food source for great blue herons and waterfowl.

Ponds and Lakes

Ponds and lakes are inland bodies of water, varying in Calaveras County from small natural ponds and artificial stock-ponds, to large constructed reservoirs like New Melones Lake and New Hogan Reservoir. These habitats may contain algae and vegetation such as duckweed or pondweed. These habitats are important for fish-eating birds such as ospreys, wintering bald eagles, western grebes, and belted kingfishers, and also provide resting and feeding habitat for waterfowl and shorebirds.

VI

NOISE ELEMENT APPENDIX

NOISE ELEMENT DEFINITIONS*

- A-Weighted Level: The sound level in decibels measured on a sound meter using the A-weighting filter network. The A-weighting filter deemphasizes the very low and very high frequency components of sound in a manner similar to the human ear, permitting good correlation with subjective reactions to noise.
- Ambient Noise: The composite of noise from all sources near and far. The ambient noise level represents the normal or existing level of environmental noise at a given location.
- CNEL: "Community Noise Equivalent Level". The average equivalent A-weighted sound level during a 24 hour day, obtained after adding five decibels to sound levels in the evening (7:00 p.m. - 10:00 p.m.) and ten decibels to sound levels in the night (10:00 p.m. - 7:00 a.m.).
- Decibel (dB): A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
- Intrusive Noise: Noise which intrudes over and above the existing ambient noise at a given location.
- L_{dn} : "Day-Night Average Level". The average equivalent A-weighted sound level during a 24-hour day, obtained after adding ten decibels to sound levels in the night (10:00 p.m. - 7:00 a.m.).
- L_{eq} : "Equivalent Energy Level". The sound level corresponding to a steady state sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over one-hour, eight-hour or 24-hour sample periods.
- L_{max} : The maximum A-weighted noise level recorded during a noise event.
- Noise Contours: Lines drawn on a map indicating equal levels of noise exposure from a given noise source.
- * Source: Appendix A, General Plan Guidelines, Governor's Office of Planning and Research, 1990.

Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop L_{dn} contours for all highways and major roadways in Calaveras County. A more detailed explanation of the model is contained in the **Noise Element Appendix**. The FHWA Model is the analytical method presently favored for traffic noise prediction by most state and local agencies, including Caltrans. The current version of the model is based upon the California and Nevada noise emission factors (CALVENO) for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and to adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic data representing annual average traffic volumes for existing and future conditions were obtained from TJKM Transportation Consultants and Caltrans. These data are summarized in Appendix A. Day/night traffic distribution and truck mix were based upon Caltrans data and Brown-Buntin Associates (BBA) file data. Using these data and the FHWA methodology, traffic noise levels were calculated for existing and future conditions. Distances from the centerlines of the major roadways to the 60 dB L_{dn} contour are summarized in Table 2-1.

These calculations do not include consideration of shielding caused by local buildings or topographical features, so the distances reported in Table 2-1 are worst-case estimates of noise exposure along roadways in the county.

Figure 12, prepared using the FHWA Model, may be used to estimate the distance to the existing 60 dB L_{dn} contour for projected volumes of arterial traffic on the roadways not included in this analysis. For arterial traffic, the predicted distance to the 60 dB L_{dn} contour is determined by the Average Daily Traffic Volume (ADT) and the posted speed limit. L_{dn} contours derived from Figure 12 are only indicators of potential noise conflicts, requiring more detailed analysis to determine traffic noise levels at any given location.

Topography in Calaveras County varies considerably, sometimes alternating from flat to hilly along relatively short roadway segments. Due to the size and topographic complexity of Calaveras County, it was not possible to evaluate the effects of topography on traffic noise at all locations in the county. Therefore the numbers presented in Table 2-1 should be considered estimates of traffic noise exposure, to be supplemented by more detailed study as needed.

